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TO CALLERS AND TELEPHONERS

Until further notice our office hours are: Mondays to Fridays, 9.30 a.m. till 5.30 p.m.
 The office is closed on Saturdays

ANSWERS TO ENQUIRIES

By reason of staff shortage due to enlistment, we regret that it is no longer possible for us to answer enquiries involving research, or to supply dates when articles appeared in back numbers, either by telephone or by letter

ERRORS, PAPER, AND PRINTING

Owing to shortage of staff and altered printing arrangements due to the war, and less time available for proof reading, we ask our readers' indulgence for typographical and other errors they may observe from time to time, also for poorer paper and printing compared with pre-war standards

Colonel E. Gore Browne on Nationalisation

At the annual meeting of the Southern Railway Company, the Chairman, Colonel Eric Gore Browne, dealt trenchantly with the Government proposal to nationalise inland transport. He based his arguments on the furtherance of the public interest. A full report of his speech is given elsewhere in this issue. Apart from giving an impressive statement of railway achievements during and before the war, he challenged the Government to prove that by nationalisation a better or cheaper service would be given to the public, or that the salaried and wages staffs would be better off. He expressed his willingness to prove the case for private ownership before any impartial committee or commission which might be appointed by the Government, charged with the duty to examine the efficiency of the Southern Railway. He explained that negotiations between rail and road now reached a point at which it was possible to work out details of a co-ordinating scheme which would retain the unfettered right of the trader to send his goods by rail or road, as he thought fit, and by revised arrangements would remove anomalies between the two forms of transport, and so provide an approach to equality of operation. Under the plans which the railways had been working out with the road transport industry, road hauliers would be licensed and would shoulder public responsibilities which hitherto they had escaped, but which all responsible elements in the industry recognised as inevitable now that it formed part of the country's transport system.

Sir Ronald Matthews on L.N.E.R. Achievements

At the annual general meeting of the London & North Eastern Railway Company last Friday, Sir Ronald W. Matthews, the Chairman, gave an impressive account not only of the wartime efforts of his railway, but also of its more recent burden. A full report of his speech is given elsewhere in this issue, and from it will be seen how the company, with the end of the war, speedily turned its attention towards the first steps in the restoration of prewar facilities. These endeavours were handicapped by heavy arrears of maintenance, shortage of locomotive stock, and a scarcity of skilled labour. Sir Ronald Matthews warned his hearers, and a wider public, that the objective of improvement on the railway's previous standards could not be achieved fully so long as it was handicapped by coal supplies of inferior quality and inadequate quantity. He went so far as to say that the company was threatened with the reduction of services because of shortage of coal supplies. On nationalisation, the Chairman left no doubt as to his clear-cut opposition, and declared that it was folly for the Government to experiment with the organisation of well-tried institutions which had proved their ability to meet national needs to the full in peace and war. The nationalisation of railways would have no beneficial effect on any of the major problems which faced the country at the present time.

Staggering of Holidays

The Minister of Labour & National Service has appointed a standing committee to stimulate and co-ordinate action on the lines of the recent report by the Catering Wages Commission on the staggering of holidays. This Committee has agreed that it is desirable that holidays should be staggered over the months of June to September inclusive. The standing committee will direct its work towards the encouragement of regional and local arrangements, not only of town holiday weeks, but also staggering by firms within towns or by workers within firms where town holidays do not provide a solution to the problem. During the present year considerable propaganda will be undertaken to educate the public as to the advantages to be obtained from staggered holidays. It is recognised as essential that if the scheme is to be successful, adequate transport facilities will have to be made available for holiday makers for the whole of the period June to September. The Minister of War Transport recognises this need, but he has reminded operators of road services that provision of holiday services must not interfere with the full operation of essential services, or impose any undue hardship on the operating staff.

Back to the Ministry of Transport

The Ministry of Transport, which came into being in 1919, was replaced by the Ministry of War Transport in May, 1941, when, under Lord Leathers, the Ministry of Shipping was combined with the Ministry of Transport. Unlike his predecessors, who generally enjoyed but short periods in office, the first Minister of War Transport lasted until the Labour Government came into power late last year. Mr. Alfred Barnes, who succeeded Lord Leathers as Minister of War Transport, is to be the new Minister of Transport, when the title and department is revived on April 1. In the meantime he will hold the joint office. For technical reasons, the abolition of the Ministry of War Transport, and the resurrection of the Ministry of Transport, cannot take place simultaneously, and Parliamentary circles are satisfied that this is the reason for the fixing of April 1 as the date for the changeover. The present Minister is the sixteenth who has been charged specifically with the duty of administering the needs and problems of transport. He and his predecessors, with their dates of office, are given in the following table:—

Sir Eric Geddes ...	1919-1921	L. Hore-Belisha ...	1934-1937
Viscount Peel ...	1921-1922	E. Leslie Burgin ...	1937-1939
Earl of Crawford ...	1922	Captain Euan Wallace ...	1939-1940
Sir John Baird ...	1922-1924	Sir John Reich ...	1940
Harry Gosling ...	1924	Lt.-Colonel J. T. C.	
Rt. Hon. Wilfred Ashley ...	1924-1929	Moore-Brabazon ...	1940-1941
Herbert Morrison ...	1929-1931	Lord Leathers ...	1941-1945
P. J. Pybus ...	1931-1933	Alfred Barnes ...	1945
Hon. Oliver Stanley ...	1933-1934		

The average tenure of office since the Ministry was instituted has been 1½ years.

Home Railway Traffic Receipts

The second return of home railway traffic receipts, that for the four weeks ended February 24 last, under the renewed practice of publication, shows that during the period under review there was a total decline of £2,119,000. The decrease spread over all forms of traffic, but was greatest in the case of revenue for merchandise, which at £8,000,000 was £2,054,000 less than the current corresponding weeks of 1945. Passenger receipts fell by £31,000 to £13,146,000, and coal and coke traffic yielded £34,000 less at £3,715,000. The following table shows the figures for the four weeks of 1946 compared with those for 1945, together with those for the similar period of 1939:—

	1946 £000	1945 £000	Decrease £000	1939 £000
Passengers ...	£13,146	£13,177	£31	£6,460
Merchandise ...	8,000	10,054	2,054	4,021
Coal and coke ...	3,715	3,749	34	2,946
Total ...	24,861	26,980	2,119	13,427

For the eight weeks of this year aggregate traffic is £49,134,000, or £3,127,000 less than the similar period of 1945. Passenger receipts at £26,352,000 are the only item advanced—£579,000. Merchandise receipts at £15,636,000 are down by £3,691,000 and coal and coke receipts at £7,146,000 are lower by £15,000. For the corresponding period of 1939, total railway traffic receipts were £26,254,000.

Overseas Railway Traffic

Argentine railway receipts have shown increases throughout the past fortnight, and Buenos Ayres Great Southern and Buenos Ayres Western takings have improved weekly ever since the declines of ps. 735,000 and ps. 35,000 respectively recorded in the thirty-first week. In the thirty-fourth and thirty-fifth weeks the Buenos Ayres Great Southern, with takings of ps. 4,770,000, and ps. 4,486,000, had the highest receipts of the four principal companies, and has also shown the largest increases compared with the preceding year, namely, ps. 627,000 and ps. 294,000 in the two weeks. Buenos Ayres Western traffics have improved by ps. 126,000 compared with the preceding year during the past fortnight. Traffics of all four companies for the thirty-fifth week of the current financial year are shown in the table below:—

	No. of week	Weekly traffics	Inc. or dec.	Aggregate traffic	Inc. or dec.
Buenos Ayres & Pacific*	35	2,672	+ 98	78,376	+ 4,547
Buenos Ayres Great Southern*	35	4,486	+ 294	121,084	+ 5,964
Buenos Ayres Western*	35	1,134	+ 81	42,125	+ 2,551
Central Argentine*	35	3,390	+ 184	109,428	+ 8,268
Canadian Pacific	9	1,139,800	+ 24,600	10,321,400	- 243,600

* Traffic returns in thousands of pesos

Canadian Pacific receipts were £268,200 behind the previous year at the end of February. The Canadian National return shows a decrease of £333,400 in the first month of the current year.

Dorman, Long & Co. Wagon-Building Contract

Dorman, Long & Co. Ltd., of Middlesbrough, has received a contract from the Director, Royal Ordnance Factories, and the Ministry of Supply for 10,000 steel wagon bodies for the home railways. The work is being undertaken with the help of 27 sub-fabricators in the structural engineering and allied trades in all parts of the country. An enormous amount of work confronts the wagon building industry of the country and the contract has been arranged in order to supplement their output and to relieve the acute shortage of rolling stock which is seriously affecting railway transport services. The wagon builders are to supply the wheels, axles, and other mechanical parts. The wagons are of the 5-door mineral type and of 16 tons capacity. Delivery is to begin in the middle of next month and will be completed by the end of November. In addition to the 10,000 wagons for the home railways, Dorman Long is also parent contractor for the supply of 7,000 wagon bodies of the same capacity, but of riveted construction, for the French Railways. Assembly of these vehicles, delivery of which has already begun, is taking place in France. The Tees Side Bridge & Engineering Works Limited, Middlesbrough, is building 500 complete all-steel 16-ton mineral wagons for the Ministry of War Transport and 500 for the L.N.E.R. It is also building for the L.N.E.R. 1,000 13-ton high-sided all-steel goods wagon bodies and 500 16-ton mineral wagon bodies. These are being turned out at the rate of 33 bodies and 22 complete wagons a week.

United Kingdom Exports to Argentina

Sir William McCallum, Chairman of the British Chamber of Commerce in the Argentine Republic, has issued a circular letter urging that care should be exercised by British exporters when appointing representatives abroad. He points out that there have been many instances in which agencies have been placed without due regard to the eligibility of the local firm appointed. It is the considered opinion of the British Chamber of Commerce in the Argentine Republic that without the exercise of the utmost care in the selection of a proper sales organisation abroad, be it an agent, representative, or branch office, the success of the trade drive which must be embarked on as soon as circumstances permit, will be seriously impaired. With the accumulated experience of over 30 years, devoted exclusively to the furtherance of Anglo-Argentine trade, the Chamber is in an excellent position to advise British firms who may wish to do business in Argentina. Recently it has set up a separate department which is prepared to undertake preliminary research work on behalf of United Kingdom undertakings which have not traded previously with the Argentine Republic. The Chamber will welcome inquiries from British concerns, and urges that it should be consulted before negotiations are entered into for the appointment of agents or representatives in Argentina.

Size of Railway Wagons

In recent issues of *The Economist* the old controversy as to the optimum size of railway wagons in this country has been revived. Mr. E. R. B. Roberts, in a letter published in *The Economist* of February 2, advocated the use of 50 or 60-ton self-discharging American type coal wagons, and to this, in the February 16 issue, Sir Charles Newton replied that this would upset the whole structure of British industry, as for minerals and heavy merchandise the standard British 4-wheel wagon, as a rule, is the only type that industrial firms and collieries can handle conveniently over their private sidings and with their present loading and unloading appliances. The railways would be delighted to build the American type vehicles if the industrialists concerned were prepared to undertake the capital expenditure required to enable them to handle the large capacity wagons. Mr. Roger Gibb intervened in the correspondence in *The Economist* of March 2 to give some figures of average loads in this country and

America, and went on to suggest that the 20-ton wagon should be a standard in England. This was not the point which was being made by Mr. Roberts, or to which Sir Charles Newton was replying. Twenty-ton wagons are already in use on the British railways, and the Great Western Railway, in particular, has made considerable efforts to popularise them. We reproduce the correspondence on page 303.

Bridge Destruction and Restoration in France

The devastating effect of the systematic R.A.F. bombing of bridges on the main and secondary lines of communication in France, particularly before D-Day, is recognised as one of the most important contributory factors in the success of the great Allied invasion of that country. Add to this devastation sabotage by French underground forces and the widespread destruction caused by the demolitions carried out by the retreating Germans, and some idea may be formed of the immensity of the task involved in the essentially rapid, if temporary, restoration of communications, which for the time being had ceased to exist. As mentioned in an article in this issue, some 2,400 railway bridges alone were wrecked or damaged, many of them—such as those over the Rhone, Loire, Seine, Voise, and Marne—suffering complete demolition throughout considerable proportions of their lengths. Primary considerations were dictated by military demands, but there were also urgent calls for immediate restoration of essential civilian communications, these having an indirect bearing on the military situation. The wrecked portions of double-line viaducts and bridges were, in practice, usually replaced temporarily by single-line or interlaced double-track girder spans using only half the pier foundations and/or superstructures and facilitating subsequent restoration of permanent double-line capacity without interruption of traffic. One of the most striking features of the article is the design and erection of such slender reinforced concrete columns as the Chaumont viaduct. True, they are strutted at two levels longitudinally, and when the viaduct is entirely rebuilt will form cores to the piers which, with the arching, are being built up round them.

Unification of Engineering Standards

The Ministry of Supply & Aircraft Production has published a report prepared by the conference held in Ottawa in September and October, 1945, under the auspices of the Combined Production & Resources Board, on which the United Kingdom, Canada, and the U.S.A. are represented, on the unification of engineering standards. It records agreed recommendations on a wide range of standardisation subjects, including various types of screw threads, limits and fits in engineering and drawing practice. Detailed agreed recommendations are recorded in acme threads, buttress threads, and instrument threads, and substantial progress is recorded in the consideration of special threads for high-duty studs in light alloys, pipe threads, and screw threads for gas cylinders. The principal recommendations are those concerned with the general problem of arriving at a common screw thread form and associated ranges of diameters and pitch for general engineering use in countries using the inch system of measurement. The adoption of these recommendations would solve a problem which has very wide commercial considerations and which has been outstanding for the best part of 100 years. The report also records substantial progress in the matter of unified standards for limits and fits in engineering and for drawing practice. The British Standards Institution has been invited to give early consideration to the recommendations of the report.

The Vulcan Foundry's "Liberation" Locomotive

Infinite patience, a lively understanding of post-war Continental needs, and sheer ability are the principal ingredients in the exceptionally interesting, and indeed significant, "Liberation" 2-8-0 locomotive which has just been completed at the works of the Vulcan Foundry Limited, and which is briefly described elsewhere in this issue. This is surely a design having a history without parallel in the long story of British locomotive engineering. The requirements of seven countries had to be co-ordinated and fused into a design which, as nearly as possible, was to be able to "go anywhere and do

anything" in European rail transport. The language difficulty alone, at the meetings of the very "international" Technical Advisory Committee on Inland Transport of the Allied Governments, was formidable. After considerable initial work, however, the Vulcan Foundry drafted a preliminary design, and it is the best possible tribute to the insight of the company's design staff into the problems confronting them, that this trial effort needed but little modification to satisfy the committee's very exacting requirements. We were invited to see one of the first of these locomotives to be completed, and were much impressed by the combination of massiveness and simplicity of the design—qualities which should undoubtedly go far towards reducing and simplifying maintenance work.

Railway Chairmen Challenge Nationalisation

AS was inevitable, a large part of the speech of each of the Chairmen of the four main-line railway companies was devoted to the policy of nationalisation of the railways, which has been promulgated by the Government. In each case the opposition voiced to this policy was complete, and if it varied at all, it was in the method of attack rather than in principle. All the Chairmen accepted, some categorically and others by inference, the challenge laid down by Mr. Herbert Morrison, Lord President of the Council, that it was up to the nationalisers and the anti-nationalisers to prove their respective cases. So far there has been no attempt by the Government, as the spearhead of the nationalisers, to prove its case, but the speeches of the railway Chairmen have adduced a vast mass of evidence in support of their claim that under private enterprise the railways have been economically and efficiently conducted, and they have argued strongly that no public benefit would be derived from State control of the railways.

In the absence of details of the Government's plans, the Chairmen have been at a disadvantage in that they have been able to deal only with the broad aspects involved in nationalisation. Their line of approach, therefore, has had to be conditioned by the necessity to counter a threat which is, as yet, intangible in its method of application. Possibly for this reason the railway spokesmen in their opening round of the fight, which may be expected to intensify from now onwards, contented themselves with a statement of the railways' achievements, with a rebuttal of the idea that nationalisation would afford benefit to the public, and with a demand for a public inquiry into the efficiency of the railways. *The Times* favours a comprehensive inquiry into the economic and technical implications of transport as a whole, and agrees that to such matters as equality of treatment between rail and road the purely political approach is incapable of providing an answer.

So far the railways have not put forward a detailed alternative to nationalisation, but neither has the Government advanced details of its plan. It is clear that the railways do not ask to go back to the conditions which prevailed in 1939, before the present Government control became effective. Despite the calls made on them during the war, progress in the efficient development of the railways has not stood still, and it is evident from the remarks of more than one of the railway Chairmen that in the most fundamental of the problems facing the internal transport of this country—relations between rail and road—substantial progress has been made.

Probably the conversations between the rail and road interests give the lead, in large part, to the ideas which the railway companies have for the future organisation of the inland transport of this country. A practical obstacle to the evolution of co-ordination between rail and road has been removed by the recent formation of the National Transport Federation, and all the responsible elements in the road transport industry have indicated their readiness to assume the obligations appropriate to the operation of a public transport service. The position, therefore, shows a great advance on that which obtained at the outbreak of war, and for the first time since road competition assailed the railways, it is evident that there is a practical possibility of a proper co-ordination between the two forms of transport.

To impose nationalisation at this stage would be to throw into confusion the plans which have been evolved painstakingly between the two parties. If the Government is bent on forcing through its ideological conceptions in the face of all

reasoned argument, and all practical advice, there seems nothing that can stop it, in view of its present great majority in the House of Commons. If it is bent on putting political dogma before national interest, and on waging war on private enterprise at the expense of the efficiency and economy of fundamental industries, there can be no doubt of the outcome. The outcome of the determination of the railway Chairmen to force the issue into the open has wider implications than the future of the railways, fundamental though that is to the trade and commerce of the country.

Monthly Digest of Statistics

IN our issue of February 22 we referred briefly to the publication of the first *Digest of Statistics* prepared by the Central Statistical Office. The aim of the digest, which will appear monthly, is to present in summary-form statistics to "show the changing pattern of the economic activity of the country." In the course of the recent debate on the allocation of manpower, Mr. Attlee told the House of Commons that the Government was trying to give as much information as possible.

The array of figures set out in the 108 tables looks imposing enough. The statistics are grouped under 11 heads, ranging from employment, fuel and power, raw materials, and manufactured goods, to finance and wages and prices. The information supplied about inland transport is too meagre to give any clear idea about the position.

There are three tables (95, 96 and 97) assigned to railway traffic, and a fourth table (98) gives the numbers and types of motor vehicles for which licences were current at various dates. That is all the public is told about the important inland transport industries that the Government intends to nationalise. We propose to show that the three railway statements are a most inadequate substitute for the returns issued up to July, 1939.

The first section of table 95 gives weekly averages for the traffic receipts of the main line railways and the L.P.T.B. covering (a) the years 1935 to 1944 and (b) 13 four-weekly periods into which 1944 and 1945 are divided. We agree with *The Economist* in disliking what our contemporary calls "the perverse trick" of using weekly averages. For years the railways have compiled current statistics for four-weekly periods and now publish traffic receipts for each four weeks. It would be convenient if the absolute totals for the periods adopted by the railways were inserted in the digest.

The natural arrangement would have been for the second section of table 95 to deal with railway expenditure. Instead it gives the tonnage of freight train traffic originating on the main-line railways. It would have been an advantage if details for each of the four systems had been published to indicate the trend of freight traffic movement in four regions of the country which are well defined and possess industries with distinct characteristics. A similar comment applies to the estimated ton-miles included in table 97 along with loaded train-miles and loaded wagon-miles.

The subject of table 96 is passenger journeys originating on main-line railways. Monthly averages are given for the years 1935 to 1944 and totals for the calendar months in 1944 and 1945. The three tables, it will be gathered, do not include a single figure of expenditure. Neither do they give particulars of the rolling stock available, nor any statistics by which the efficiency of railway operating performance can be measured.

In the same week as the digest appeared there arrived from the Bureau of Railway Economics, Washington, D.C., a statistical record of the development and technological progress of railways in the United States, beginning with the year 1911. The record, completed to the end of 1944, packs a vast amount of information about railway capital, plant, staff, traffic operation, purchases of fuel and supplies, and financial results into 28 pages. It then concludes with an analysis of wartime changes in freight traffic trends running to nine more pages. This brochure was prepared for a committee set up by the Association of American Railroads to make an economic study of transport, but has now been released for circulation in accordance with the liberal practice customary in the States. It demonstrates what can be done with statistics when expertly handled. In comparison, the transport section of our Government's *Digest of Statistics* seems amateurish performance reflecting great discredit on all concerned.

The Problem of the Top Rail

IT is a matter of common knowledge that the least reliable part of any normal steel ingot is the top. As the hot metal sets in the ingot-mould, from the outside inwards and from the bottom upwards, the contraction produces a cavity at the top of the ingot known as the pipe, which, with associated conditions in the steel such as segregation of impurities, is responsible for a large proportion of the rail failures that occur in the track. Standard rail specifications require that the rail shall be free from all top-of-the-ingot defects, and though in principle this requirement is carried out, in actual practice the average top rail from the ingot is not 100 per cent. free from the influence of these defects, as the broken rail records of every railway show only too clearly. Pointed attention has been drawn to this matter in the United States as a result of the work of Sperry detector cars. Designed in the first instance for the detection of transverse fissures in rails, which are a defect caused by cooling rather than ingot conditions, the detector cars have brought into prominence the disconcerting frequency of other defects, such as vertical and horizontal split heads, amounting to no less than 41 per cent. of all the defective rails located by the cars. In the great majority of cases these split heads can be traced to piping or segregation and have occurred in top rails from the ingot.

Theoretically the top rail should be the equal in quality of the middle rail or the bottom rail; practically it is not always so. If the defect in the top rail is the primary piping of the top of the ingot, present because insufficient crop has been taken from the ingot during rolling, detection during inspection is relatively easy, for the crack caused by the pipe is visible in the rail-end. If the trouble be secondary piping—a completely enclosed cavity which has rolled out into a crack—this is not visible externally, and, apart from such measures as Sperry detection, its presence will be unknown until the head of the rail begins to bulge in service, and the crack works through to the running or fishing surfaces. The existence of segregation is also incapable of detection externally, except by taking sulphur prints off all the rail-ends, and even then, although there need be no dispute over a badly segregated rail, many rails may contain slight segregation which would outlast the normal life of the rail without giving any trouble, and therefore need not call for rejection. Apart from the time and labour involved, the argument against sulphur-printing all top rails is the responsibility thrown on the inspector of deciding, from the sulphur prints, what is acceptable and what is not.

From the manufacturing point of view, additional precautions can be taken to assure sound top rails, but they add to manufacturing costs. One is to cast the ingot large end up, and to provide it with a head encased in a refractory lining, which keeps the top of the metal molten until the ingot proper has solidified. This method of providing ingots with "hot tops" is used at certain rolling-mills when Sandberg sorbitic rails are being produced, for if heat treatment is to be applied, it is more than usually important to ensure that the rail is free from segregation of carbon, which, if heat treated, might cause brittleness in the rail. It is for this reason that other mills, when using the sorbitic treatment, apply it to middle and bottom rails only, leaving the top rails from the ingot untreated. Another precaution is to cast a larger ingot, so that a greater percentage of crop may be removed from the top end. It is also possible to reduce the depth of the pipe by methods of steel-making that produce a "killed" rather than a "piping" steel, but these methods tend to disperse instead of to concentrate the impurities at the top of the ingot, which is undesirable from the user's point of view.

Most rolling mills mark their top rails distinctively, and at some works this distinctive marking is extended to all rails in the ingot, so that where the normal three 60-ft. rails are being cut, it is possible for the user to see whether any given rail came from the top, middle, or bottom of the ingot. This marking should be made compulsory, so that it may be possible for the user, if he so desires, to confine top rails to secondary purposes; this would enable him to relay main lines and other important locations with middle and bottom rails only, and—even more important—to ensure that no top rails are used in switch and crossing manufacture. Objection might be raised to such a practice on the ground that it recognises as normal

a top rail quality inferior to that of middle and bottom rails. It would be possible, in ways already mentioned, to enforce a uniform quality in all rails, top, middle, and bottom, and to check it by more drastic testing than is at present standard, but the addition to manufacturing costs would tend inevitably to increase the price of rails, and the remedy might prove more costly than the disease it is intended to cure. Where precisely the line should be drawn is a problem for the railway engineer to decide.

Manual Block Working

THE one regret that appears to have come to the minds of his hearers when Mr. B. Wagenrieder read his paper on manual block working before the Institution of Railway Signal Engineers on February 8, was that he had not made it sufficiently contentious. The block telegraph arose, as the paper pointed out, from the need for improving the time interval working under which the signalman's function was temporary. The conception of the space interval, the basis of block working, was already in existence under the time interval system as far as station limits were concerned, since no stationmaster would signal his station as ready to receive a train if the line there was obstructed. Station limits could be supervised directly; the space between stations could not. By holding a movement, however, for a certain time, opportunity was given to the preceding one to come under the protection of the next signalling point, or for those in charge of it to protect it themselves if it suffered unexpected delay. The block enabled the space between stations to be supervised by those at each end of it, practically as well as station limits, and gave them the power of ascertaining, to use Sir W. F. Cooke's words, written in 1842, that "before a train is permitted to move at all, there is absolutely no risk of collision."

This process of telegraphing seemed so simple that mistakes in it appeared inconceivable to Cooke, but experience soon showed that definite methods of procedure and a well-framed code of rules were essential if the system was not to break down when it was most needed, that is, when something unusual took place. In this way, aided by the apparatus produced by inventors like Tyer, Walker, Preece, and Spagnoletti, the block telegraph gradually developed on our railways, but practice on the various lines was far from uniform. Some regarded the line as normally clear or open, others regarded it as normally blocked or closed, and the latter experienced some difficulty in harmonising their practice with the use of 2-position indicators, with which all the early one-wire instruments were fitted. Lines willing to use three wires and the needle instrument avoided this. Difficulties soon arose at junctions, where different systems of block converged, and in 1881 there was a triple collision in the Canonbury tunnel, North London Railway, arising out of the confusion so created. The superintendents were then pressed to take the matter in hand and all lines shortly agreed to a uniform "obstruction danger" signal of six beats. In 1884 a number of lines adopted fairly uniform bell codes and, to a lesser extent, block rules, but some remained independent in this respect for many years. Few realise, probably, that the L.S.W.R. worked its block normally clear, under its own rules, down to grouping. Even today certain differences obtain between the four groups.

Mr. Wagenrieder referred to the question of bell codes and the possibility of reducing the amount of ringing. It has to be remembered that the British block telegraph is a true telegraph, in that it transmits by its codes information regarding the nature of the trains as well as the state of the line. In some cases, however, in this country steps have been taken to reduce the ringing where describers are in use. The S.E.C.R. had a special bell code between London and Hither Green, and elsewhere. The G.E.R. had one for its Sykes block sections, while the L.S.W.R. code comprised the minimum of ringing. If, however, the code is used to describe in detail from box to box every class of movement, then it is impossible to avoid a large amount of ringing, especially if acknowledgment by repetition is insisted on, as standard rules require. Whatever the future may have in store, there is no doubt that block working will be with us for a long time and is still a subject worthy of discussion. In fact, a very good "question and answer" meeting might well come out of it.

Air Transport and Overseas Railways

By Thompson Fairless, A.M.I.Mech.E.

THE end of the world war has brought with it visions of the possibilities which may be achieved by air transport, and all connected with commerce throughout the world sooner or later will turn their eyes to this mode of transport and consider any benefits which can be derived therefrom.

It might be asked in what manner can air transport and overseas railways be considered in the light of complementary services. Broadly, it is this; air transport will benefit by the use which can be made of it by overseas railways, and the latter will benefit by the quick delivery from air transport.

The possibilities of air transport are not in the province of this article, but this may be said, that like all other forms of transport, it will flourish in accordance with the advantages it has to offer, and the consequent demand for its services. War is usually wasteful, but in this war the need to carry huge bomb loads great distances, as well as all manner of other war material, has resulted in the development of planes capable of such achievements, and aeroplane manufacturers now have on their drawing boards or in the making, planes which will be especially adapted for carrying merchandise to all quarters of the globe, maintaining regular commercial schedules, practically independent of the weather at the altitudes at which they will fly, and radar will enable these planes to take off and land in any condition of visibility.

The quick delivery which air transport therefore will have to offer to overseas railways is worthy of some consideration, as it is well known throughout the railway world that the necessity for carrying in stock spare parts of a considerable variety of items represents an appreciable amount of idle capital relative to revenue; moreover, railway officers know that many of the spares carried may be termed "just-in-case" spares, or in other words, someday they may be required, and as often happens, a chief officer responsible for the functioning of some section of the railway system, provides in his requisitions for many eventualities to minimise the time required for making any replacements. Such a policy where distances from the home market is great may have been completely justified, but it is possible that many of these "just-in-case" spares eventually become redundant and often not worth more than scrap value. Air transport may change to some extent the complexities of overseas railway storekeeping by introducing a definite dividing line between stocks for general maintenance consumption and those items which may be classified as "just-in-case" spares which are capable of being transported by air if and when necessity arises. The amount of stock for general maintenance consumption of many items might also be reduced, in the knowledge that, in the event of urgent necessity, quick transport is available.

The benefit which may be derived from the introduction of such a policy is at this stage an unknown quantity, but once regular air transport services have been established and freight costs known, it may prove worth while for all overseas railways to give some consideration to the facilities offered when contemplating the stocking of any item which may be classified as "just-in-case" spares.

It is recognised that financial losses in some cases may be incurred when "just-in-case" spares are not ready to hand; however, this is a matter which resolves itself into a case of policy, and each item would have to be considered on its own merits of importance. The "just-in-case" spares might be conveniently divided into two groups, namely, items which can be classified as standard spare parts which can be taken from the maker's stocks and those items which call for special manufacture.

The summing up of the foregoing may be briefly stated as:—

- 1.—That complementary services might be attained between air transport and overseas railways.
- 2.—That air transport might eliminate the necessity for stocking many items of "just-in-case" spares and considerably reduce the amount of capital involved.
- 3.—That redundant spares falling into obsolescence might be minimised.

Although this has been written in relation to overseas railways, many of the foregoing considerations are equally applicable to many industrial concerns.

LETTERS TO THE EDITOR

(The Editor is not responsible for the opinions of correspondents)

Dunkirk Notes

Cardiff, March 14

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—Reverting to your issue of January 11 and to the interesting details given subsequently by "Another R.E." (February 15), the following extract from the Second Despatch from Viscount Gort, C.-in-C., B.E.F., France and Belgium, published on October 17, 1941, may be worth repeating:—

"Dunkirk . . . remained available for unloading supplies till May 26, but constant air raids imposed a well-nigh unbearable strain on the *stevedore battalions*. However, they remained at duty until, in the end, all the quays and cranes were put out of action."

The italics are mine. Presumably what two depleted companies of sappers, a few stevedores and a number of odds and ends did, must have given the impression that there were "battalions" at work—they certainly did work.

Yours faithfully,
R.E.

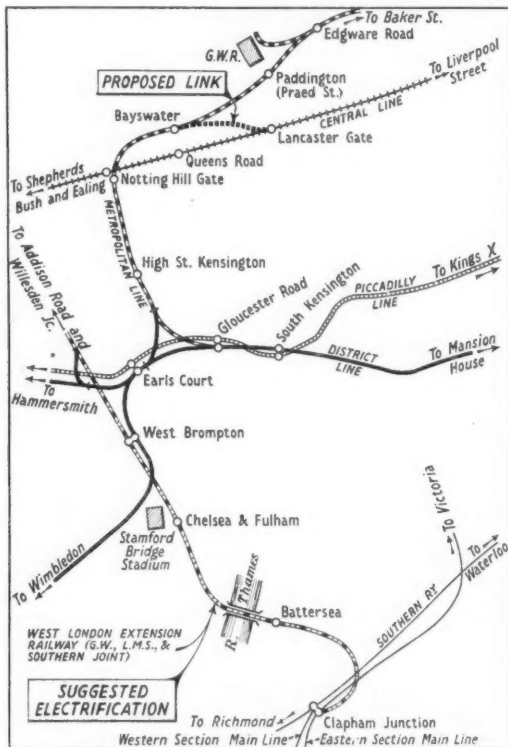
A Link Which Should Not Be Missing

Essex House, Essex Street, Strand,
London, W.C.2. February 28

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—The London Passenger Transport Board has invited suggestions. The invitation is hereby accepted. I would suggest for consideration that a useful link-up could be made from the Central Line at Lancaster Gate Station to the Metropolitan Inner Circle at Bayswater Station.

The difference between the two lines in relation to sea level is about 50 ft. Gradients of 1 in 46 are found not imprac-



Proposed link between London Transport, Central and Inner Circle Lines

ticable on the Underground, which indeed can show an instance of 1 in 35. Using, however, a grade of only 1 in 60, which is regarded by London Transport as good practice for a reasonable distance, a new line about 46 ch. long from Lancaster Gate could join up with the Metropolitan Railway some 2 or 3 ch. east of Bayswater Station. Such a link would enable a service to be run from the Central Line over an un congested section of the Inner Circle into Earls Court, a focal point for Hammersmith, Hounslow, Richmond, and

Wimbledon lines; and then on from Earls Court over the rails of the West London Extension Railway (with the restoration of the pre-1880 junction at West Brompton) to Clapham Junction, a focal point on the Southern Railway. En route such a service would put on the map passenger stations at Chelsea and Fulham (adjoining the Stamford Bridge Stadium and football arena) and Battersea.

If the demands—either present, or future after the opening of its eastern and western extensions—on the Central Line would prevent through trains being run over the Central Line to Earls Court, useful facilities could still be given with a conveniently arranged interchange station at Lancaster Gate. Alternatively, without incurring the expense of a new link between Lancaster Gate and Bayswater, a service could be run from Edgware Road (Metropolitan) Station to Clapham Junction with interchange facilities with the Central Line at Notting Hill, improved by a subway between the two stations there. This incidentally would provide a useful direct connection taking about 17 minutes between Paddington and the Southern Railway system, and the total expense incurred would be only that of putting in a junction at West Brompton, electrifying the West London Electric extension from West Brompton to Clapham Junction, and making a subway at Notting Hill.

The local authorities might be induced to contribute towards the cost of a subway at Notting Hill Gate in view of the generally declining birth rate and the consequent desirability of pedestrians being strictly preserved, particularly as some people have even suggested that there should be a close season for pedestrians to enable them to breed.

As Chelsea extends from Lots Road power station to Knightsbridge, and Fulham from Chelsea Creek nearly to Hammersmith Bridge, I would suggest that Stamford Bridge would be a better name for a revived Chelsea & Fulham Station as giving a clearer indication of its local habitation. In case it were thought that there might be confusion between Stamford Bridge and Stamford Brook for the wayfaring man, if a fool, "Chelsea (Stamford Bridge)" might be adopted instead.

Whilst on the question of names, it is interesting to note that the 1899 edition of Airey's London shows that it had been intended to call Lancaster Gate "Westbourne," and Bond Street "Davies Street." Also I would suggest that it is time for Queens Road Station on the Central Line to be brought up to date as Queensway, even though the title of Portland Road Station persisted until 1917, more than thirty years after its cognominal highway had become Great Portland Street; an electrified Underground should be capable of more prompt action than the old sulphuretted Underground.

Yours faithfully,
KENNETH BROWN

Remote Designing—Bad Practice?

Cambridge, February 6

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—Lt.-Colonel Brooke-Hitching must be strangely uninformed as to the viewpoint of overseas railway officers to express, in his letter in your February 1 issue, surprise—and annoyance—because a railway even of the size of the C.U.R. considers it proper to use the experience of its C.M.E. in the designing of its locomotives. Many years' experience of how designing done by others not on the spot and conversant with all the local conditions and circumstances, has led to long-term continuous losses in fuel, maintenance, availability, operational adequacy—and even excessive rail wear—has been quite definite. Your correspondent may not have had equally good means of information, and thus far may be excused, although if he had investigated upon a broader basis his letter might have been more compatible with customary technical discussion.

It is also strange that he apparently does not know—or alternatively, has not contemplated—the fact that the life-cost of a locomotive is so many times its original construction cost as to reduce this latter to relatively little appreciable moment; this is particularly the case on many overseas railways where the life-cost of fuel consumed, for instance, may reach twenty times the first cost of a locomotive; and consequently a 5 per cent. saving in fuel brought about by optimum adjustment of design to conditions, will not only off-set any extra original cost, but the whole original cost in respect of this item alone.

Your correspondent may suggest that it is feasible for "remote designers" to keep in touch with a C.M.E. and attain the same result; practice, however, proves this to be a completely inadequate substitute. He suggests that "in the interests of economy, design and construction . . . and entire responsibility should rest with the builders." The so-called "economy" (?) is briefly dealt with above, whilst regarding

the builders being judged by results, this would not exonerate a C.M.E. when the locomotives did not produce the optimum results, upon which a railway might be vitally dependent to make its traffic pay.

Chapter and verse can of course be given for the foregoing, but in order not to subject you, Mr. Editor, to the risk of again being called to order by your correspondent for mis-use (?) of space, I shall refrain; moreover I am under no obligation to inculcate the practical points of overseas railroading into any who may desire the usurpation of the prerogative of the purchaser to order what he wants, and to retrogress to that calamitous enemy of real progress, "remote-designing."

Yours, etc.,

P. C. DEWHURST
M.Inst.C.E., M.I.Mech.E.

A North Orbital Railway

7, Cambalt Road,
Putney, S.W.15. February 10

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—On perusing some back numbers of *The Railway Gazette* I came across a diagram showing the location of a proposed "north orbital" railway from Hemel Hempstead to Chelmsford included in Prof. Abercrombie's replanning schemes for the Home Counties. [See our January 5, 1945, issue.—Ed. R.G.] Your criticism of the route of the proposed line justly pointed out that it did not sufficiently take into account the severe gradients of some of the existing branches which it would incorporate.

May I suggest that the idea of such a line is sound, but a slightly more southerly location would render the proposition at once more feasible and less costly? I would begin my line at West Drayton and follow the course of the present Uxbridge (Vine Street) branch; a new spur from Iwer to near Cowley would be put in, and a diversion made at the Uxbridge end to connect with the Uxbridge (High St.)-Denham branch.

From Denham to Rickmansworth a new line would be required, traversing the Colne Valley. It would probably be easier at Rickmansworth to form an end-on junction with the L.M.S.R. branch than with the Met. & G.C. From Rickmansworth to Park Street, near St. Albans, existing lines would be used; near the latter point a new line would swing away to cross the Midland at Napsbury, meet the L.N.E.R. St. Albans branch at Smallford, cross the L.N.E.R. main line between Hatfield and Welwyn Garden City, and finally reach the "Abercrombie route" at Hertford.

I have covered nearly all the above-mentioned territory by cycle and on foot, and I contend that the country traversed by my suggested line presents few difficulties, and the existing branches to be incorporated easily can be brought up to main-line standards.

Yours faithfully,
GEOFFREY WILSON

The "Paget" Locomotive

P.O. Box 7, Escombe, Natal,
South Africa. January 6

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—This note is to congratulate you heartily on your journalistic enterprise in both obtaining and publishing (at long last) drawings and details of the "Paget" locomotive. The railway world has been consciously waiting for these details for the past 40 years.

In these days of the immediate dissemination of experimental engineering knowledge, both as to successful and unsuccessful research, it is little short of amazing that the story of this locomotive should have been deliberately hidden. It is greatly to the late Mr. Fairburn's credit that he exorcised such stupidity.

Had Paget used—instead of rotary valves—a reciprocating valve between each pair of cylinders (similar in principle to the valve which worked between the h.p. and l.p. cylinders on the old Vaucain compound locomotives) and effected lubrication through the steam by means of an atomizer (a system in use by the G.W.R. at the time), the engine might have been successful. Probably a pair or so of Willans central-valve engines actuating the wheels through gearing would have been entirely successful.

Mr. K. H. Leech, in his article on the engine, remarks that the firebox heat was reverberated by the firebricks "so that none was wasted." But the whole object of the water-legs of the orthodox locomotive firebox is to absorb in the water as much radiant heat as possible. The smokebox temperatures of the Paget engine must have been very high.

It is of interest to note that the C.M.E. on the L. & Y.R. who followed Aspinall (I think Hoy) actually built an engine having a boiler containing a circular corrugated inner firebox, but no advantage showed and it was discontinued.

The shallow firebox of the Paget locomotive resembles in a way the firebox which was placed on numerous 4-8-0 engines for Colonial railways early in this century.

These fireboxes were very shallow, coming immediately over the trailing axle. They had a brick wall and so-called "combustion chamber" exactly as in the Paget engine. They were not successful steamers and most of the engines have been reboilered with the orthodox firebox and brick arch, to their improvement as economical steam generators.

Yours faithfully,
G. V. O. BULKELEY

Pilfering on Railways

Corbeaux, Puckle Lane,
Canterbury. March 5

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—Permit me to congratulate you for the apposite location of the dignified assurance from the Chief Officer for Public Relations, G.W.R., that railways are not "foolproof," in your issue of February 15. On the opposite column the continued correspondence on "Pilfering on Railways" and the impassioned indignation from Paiforce make assurance doubly sure that railways, or even railway police, are not foolproof. Moreover they apparently are not "knaveproof" either, despite machine guns, hand grenades and bayonets.

The exquisite taste and humour of the writers is of course exactly the quality which makes so popular amongst "mere Natives" the nationality to which they proclaim so proudly to belong.

Yours sincerely,
TRANSPORTUS SUPERBUS

Diesel Passenger Progress in the United States

London, N.W.3. March 1

TO THE EDITOR OF THE RAILWAY GAZETTE

SIR,—I have read with interest the article on "Diesel Passenger Transport Progress in the United States in 1945" in the March issue of *The Railway Gazette*, *Diesel Railway Traction Supplement*.

If locomotive coal gets scarcer or poorer in quality, the British railways may have to experiment with diesels for fast running one of these days. The American performance is not so spectacular as it is sometimes claimed to be. Only half a dozen of the "flyers" have an average journey speed of 60 miles an hour or more and the highest speed is 64. Many of the through journey times are commonplace—great bursts of speed over short distances are not of much account. What one would like to see most of all is a statement of receipts and expenditure for one or two well-established runs. The game may not be a paying one—save as an advertisement—as the use of a large number of diesels soon involves capital expenditure on new maintenance facilities.

Yours faithfully,
EXPERIMENTIA

[Our correspondent does not appear to be familiar with the subject of the article. To say "the American performance is not so spectacular as it is sometimes claimed to be" overlooks the fact that, as was stated in the text, these were wartime speeds. His statement "only half a dozen of the 'flyers' have an average journey speed of 60 miles an hour or more and the highest speed is 64" disregards: (a) the length of journey (given in the table); (b) the gradients over which these runs are performed (for example, through the Rockies); (c) the fact that in most cases the trains stop every 50 or 100 miles, which on runs of, in some cases over 2,000 miles, makes an appreciable difference to the overall times. From time to time in the *Diesel Railway Traction Supplement* we have dealt with the receipts and expenditure of certain diesel services. We have an article in hand which deals with the matter in detail. These analyses do not bear out the suggestion that "the game may not be a paying one"; it is unlikely that, if that suggestion were well-founded, the railways of the United States would be pressing ahead so strongly and so quickly with their conversion from steam to diesel power.—Ed. R.G.]

ELECTRIC DISCHARGE LAMPS FOR GENERAL PURPOSES.—The British Standards Institution has issued a schedule for electric discharge lamps for general purposes (B.S. 1270). This gives the dimensions and rating only, as it is hoped that in due course a complete specification will be issued; it was felt that in the meantime this schedule would be useful both to users and manufacturers. Copies may be obtained from the British Standards Institution, 28, Victoria Street, London, S.W.1, price 1s. each.

The Scrap Heap

An epicure, dining at Crewe,
Found quite a large mouse in his stew.
Said the waiter, "Don't shout,
And wave it about,
Or the rest will be wanting one, too!"

HUMOUR IN RAILWAY SIGNS

The timetable of Chinchilla, in the timber country of Queensland, is the strange notice, stating: "Unless it is raining, train will leave about once a week." This is because the rails and iron sleepers of the railway are laid on the ground without ballast, and the weight of the trains sinks the rails into the soil.

An unusual advertising poster is displayed throughout New South Wales by the State Railway Department. It is an attractive pictorial one, glorifying the facilities and benefits of using the railway services for travel. A statement at the foot says: "Use the railways—and make the railways pay!" It has been suggested that perhaps it could read: "Use the railways—freely!!"

On one of the N.S.W. suburban steam trains was a notice that said: "These seats are for ladies. Gentlemen will not occupy them until the ladies are seated." As incongruous as it was unintentional in its construction.

When the Germans were "retiring" forcefully from front-line action on the Eastern Front, the Soviet displayed a sign on a railway station in that area: "Trains, buses, and Germans, still running."

100 YEARS AGO

From THE RAILWAY TIMES, March 14, 1846

MIDLAND RAILWAY.—TENDERS FOR MAINTENANCE OF WAY.—The Directors of the Midland Railway are prepared to receive Tenders for Maintenance of the Permanent Way between the Derby, Nottingham, and Rugby Stations.

Specifications may be seen at the office of the Resident Engineer, at the Derby Station, on and after Monday, the 23rd of March instant, between the hours of 9 a.m. and 5 p.m., until Saturday, April 4th. The Tenders enclosed in sealed covers, marked "Tender for Maintenance of the Permanent Way," and addressed to the Secretary, must be delivered at the Derby Station on Tuesday the 7th of May, not later than Nine o'clock in the forenoon. Printed copies of Tenders and Covers may be obtained on application at the Company's Offices, Derby Station; and no Tenders which are not according to these forms will be received.

Parties tendering, or their Agents, must attend. The Directors will not bind themselves to accept the lowest tender.

By order,

J. F. BELL, Secretary.

March 11th, 1846.

RAILWAY QUESTIONS AND ANSWERS

Statement: Complete co-ordination of transport, with its consequent benefit to the nation and industry, is impossible under private ownership.

Answer: As complete co-ordination of transport has never yet been attempted, no one—other than a politician expressing a party view—can assert that it is an impossibility to achieve under so-called private ownership. The fact is that in the years between the wars there was an increasing tendency towards co-ordination among the different forms of transport in this country. It is true that it was not until the 'thirties that road transport emerged from the stage of hundreds of small units—many of them one man owning a single lorry—fiercely competing for any business they could get. But as these small uneconomic units are being replaced by larger and more efficient groups they are better able to speak authoritatively for their industry, and the possibility of co-ordination of all forms of transport is progressively improving. As an outcome of the Railways square deal requests before the war a Road-Rail Conference was set up to formulate a new correlated rates structure and, despite the difficulties of wartime, which have delayed the promised legislation, progress has been made in this far-from-easy task. The tendency towards co-ordination can be seen from the existing agreements between railways and coast-wise shipping and canals, while in the air, rail and associated air companies ran services which whenever possible were co-ordinated with those of the independent air operators. Of course, the railway companies themselves are a good answer to this question. The days when they were merely railway operators are long passed. Today, the railway companies are transportation companies. In addition to railways, they own and operate road transport, canals, air services, docks and harbours, hotels and travel agencies. All these services, naturally, are co-ordinated—and under private ownership—internally and between the four companies. To extend this co-ordination to non-railway-owned transport is a logical development. We should then have the main transport systems of this country co-ordinated yet under private ownership with all the initiative and enterprise retained.—From "Answers to Questions and Statements," issued by the British Main-Line Railway Companies, 22, Palace Chambers, London, S.W.1.

G.W.R. WOMEN ANNOUNCERS TO STAY

Women G.W.R. train announcers are to stay. Recruited during the war, they have proved admirably suited to the work and 40 of them are now employed at principal stations throughout the system. Others will be on the air at Wolverhampton, Pontypriid, Westbury, and Carmarthen.

The selection and training of the announcers is in the hands of Miss Geraldine Fisher, a G.W.R. employee at Paddington, whose excellent diction, voice production

and method of announcing has become the G.W.R. standard. Training a new announcer takes from two to three weeks. The girls are taught the importance of correct timing and phraseology; to speak slowly and deliberately; to get the maximum information into a minimum number of words; to avoid local dialects and the sing-songing of announcements.

The girls are tested out on a dead set, and when satisfactory make their first short live announcement, usually at Paddington, against a background of railway noises. They are between 20 and 30 years of age, and the youngest is 18.

TRANSPORT MINISTER LOSES THE WAR

Mr. Barnes, Minister of War Transport, was last night appointed Minister of Transport. For on April 1 the Government plan to revert Mr. Barnes and his Ministry to their peacetime names.—From the "Daily Express."

OPERATING ODES

Politeness Pays

Don't be rough with the passengers, 'Arry. A smile wins a smile in return.

Be polite to the passengers, 'Arry. Their thanks and good wishes you'll earn.

Don't argue with passengers, 'Arry. They may think the two-two goes at three. Just agree with the passengers, 'Arry. And think how surprised they will be.

Say "Beg pardon" to passengers, 'Arry. When your barrow goes over their toes. Then say "Thank you" to passengers, 'Arry.

When they've said where your barrow should go.

Sympathise with the passengers, 'Arry. When the two-forty's not come by four. Don't look bored with the passengers, 'Arry.

They don't know that it's done that before.

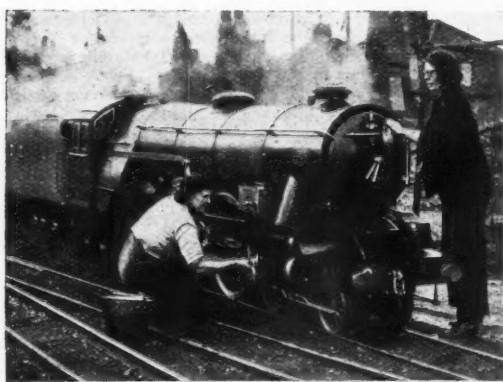
Do be tactful with passengers, 'Arry. Where they're going they don't always know.

So be patient with passengers, 'Arry. And don't say where they ought to go.

And when you are a passenger, 'Arry. You can be just as hard then to please As the rest of the passengers, 'Arry—Make the foreman crawl round on his knees.

H. W. W.

Re-Opening the Romney Hythe & Dymchurch Railway



Left: Grooming the 15-in. gauge Pacific "Hurricane" for the inaugural journey on March 1, and (right) the Mayors of New Romney and Hythe shake hands on arrival of the special train at Hythe (see report in our March 8 issue)

OVERSEAS RAILWAY AFFAIRS

(From our correspondents)

SOUTH AFRICA

Financial Position

The working of the railways, harbours, steamships, airways and aerodromes in November, 1945, resulted in a surplus of £62,030, representing the first favourable monthly result of the present financial year. It followed on a succession of deficits which included £39,114 in October, £279,285 in September, £226,656 in August, and £274,121 in July. In November, 1944, railway accounts showed a surplus of £302,046. Revenue in November, 1945, increased by £185,076 as compared with the corresponding month of the previous year, due primarily to increased passenger, coal, catering and bedding, road motor, steamship, and airways services. On the other hand, expenditure increased by £425,092 owing to higher maintenance, traffic and operating costs, and cost of living allowance payments. The accumulated deficit for the eight months ended November, 1945, was £1,398,909, which is £1,194,304 more than that recorded for the corresponding period of last year.

Reservation of Seats

It has been officially announced that compartments and coupés may in future be reserved on all South African main-line trains (excepting the Blue Train), providing accommodation is available. The new system comes into force from March 18. All war restrictions and controls have already been abolished by the South African Railways and with the return to normal it is possible to give special consideration to passenger comfort.

For a first class coupé the charge will be the normal fare plus 25 per cent.; for a second class coupé the fare plus 87½ per cent.; for a first class compartment, 2½ full fares; and for a second class compartment 3½ full fares. These minimum charges are subject to no lower charge being made than the full ordinary fares for the actual number of passengers travelling in the reserved accommodation. A first class coupé provides accommodation for two passengers, a first class compartment for four, a second class coupé for three, and a second class compartment for six passengers.

Reduction in Airways Fares

All fares on South African Airways internal services have been reduced to the 1941 basic level as from March 1. The single fare between the Rand and Cape Town is £16 instead of £20, and other fares have been correspondingly reduced. Simultaneously with this reduction, a 10 per cent. rebate applies to return fares, bringing the return fare to Cape Town from the Rand down from £40 to £28 16s. Children under the age of three not requiring a separate seat and travelling in the care of other passengers are conveyed free. If a seat is required for such children, half the ordinary fare will be charged. Half the ordinary fare will also apply to children of three years of age and under twelve.

Skymaster Aircraft

South Africa will have its first regular non-stop air service between Johannesburg and Cape Town when the Skymaster air liners, the first of which is due to arrive from the U.S.A. in March, are placed in service. Capable of carrying

forty passengers and cruising at more than 200 m.p.h., the Skymasters will initially be used on the Johannesburg to Cape Town route which alone at the present time possesses airports equipped with runways and ground facilities capable of accommodating air liners of this size and type.

With a cruising range of 4,000 miles and a speed of 215 m.p.h., the Skymasters will make the flight between Johannesburg and Cape Town in one hop. They are scheduled to fly the 800-mile stretch in 3½ hr.

Air Mails

An agreement has been concluded between the Union Post Office and the South African Railways to restore inland air mails which were suspended, together with all civil air mails, in 1940. When South African Airways resumed operations in 1944, it was not practicable to carry air mails since too few aircraft were available and it was impossible to devise an equitable system of differentiating between mail offered for transport by air. It is not yet possible to give the exact date of the re-introduction of air mails, but it is expected to be during March.

INDIA

Kalka-Simla Motive Power Proposal

Proposals are under consideration for obtaining 20 diesel-electric locomotives for passenger service on the Kalka-Simla Railway. It is planned to employ engines with a low centre of gravity whereby it may be possible to raise the permissible speed from 15 m.p.h. to 20 m.p.h.

Rupar-Talaura Line

The Punjab Government has agreed to contribute Rs. 42 lakhs towards the cost of the North-Western Railway line from Rupar to Talaura, which is to be built in connection with the Bhakra Dam. The balance to be paid for by the Central Government is Rs. 52 lakhs.

Additional Trains on Indian Railways

Replying to a question in the Assembly on February 9, Sir Edward Benthall, War Transport Member, said that up to January 1, 1946, 665 trains had been restored or extended. This represented an increase of 39,317 train-miles a day. Every endeavour was being made by the railways within the limits of their power and stock resources to restore as many as possible of the public passenger services curtailed during the war.

G.I.P. Electrification

Colonel R. B. Emerson, General Manager of the Great Indian Peninsula Railway, stated recently that the Bombay area electrification might be extended in the next five years. The plans would include the 45 miles from Poona to Dhond, and an extension from Igatpuri to Bhusaval. The cost of the extensions would be Rs. 70,000,000.

Ticketless Travellers on N.W.R.

In the court of Mr. Riaz Kureishy, Special Magistrate, North-Western Railway, held in Amritsar, Lahore, Sialkot, and Narowal during January, 2,106 persons were tried for travelling without tickets; 2,089 were convicted, and 2,042 paid fines amounting, in all, to Rs. 11,181 1 as. Forty-seven persons were sent to jail for failing to pay the fines imposed. The

arrested included a number of persons convicted following a surprise raid on 184 down passenger train between Kamoke and Muridke Stations, in which many employees of Government offices in Lahore were arrested.

VICTORIA

Results for 1944-45

Gross revenue of the Victorian Railways in 1944-45 was £15,352,493, a reduction of £622,141 compared with the preceding year. The surplus was £207,013, as against £448,136 in 1943-44. The decrease in revenue occurred almost wholly in goods traffic, largely on account of active Pacific war operations moving progressively away from Australia. Other factors were the almost complete failure of the wheat harvest, restrictions on goods traffic owing to coal shortage, and the priority removal of livestock, at reduced rates, from drought-stricken areas. Passenger traffic increased slightly, travel restrictions having been eased and some services restored.

Working expenses, at £12,914,088, showed a reduction of £381,807. There was a decrease of £350,000 in contributions to railway renewals and replacements fund, but rolling stock maintenance increased by £143,042, and wages awards showed an increase of £114,000.

Coal Supplies

During the past two years 58 per cent. of the railways' coal supplies had to be brought overland at a net additional cost of £324,000. During the winter of 1944, coal supplies were supplemented by burning firewood on pilot engines. Roughly 13,500 tons of coal were saved by this means, but the 40,000 tons of wood fuel burned cost £42,500 and involved an extra expense of £16,200 apart from the heavy additional cost of haulage and handling.

Oil-Burning Locomotive Experiments

A class "A2" locomotive has been adapted experimentally for oil-burning, and is working goods trains between Melbourne and Seymour with an oil consumption of approximately 850 gal. for the round trip. Oil storage is provided by a 1,300-gal. steel tank fitted in the coal bunker. Although the loads have been hauled successfully, further adjustments will be necessary before the performance is as good as that obtained with coal. Shortage of coal made 1945 easily the department's most difficult year, and reached a climax in December, when passenger services were reduced to a skeleton and goods transport was practically confined to essentials.

UNITED STATES

Grand Central Terminal Passengers

Inwards and outwards passengers handled by the New York Central and New Haven companies at the Grand Central Terminal, New York, in 1945 totalled 64,719,574. This was an increase of 1,956,714 (3.1 per cent.) on 1944, the previous record year. The largest number handled in a day in 1945 was 240,078 on November 21, compared with the previous record of 237,769 on December 26, 1944.

Rebuilding of Detroit Station

Work has begun on the remodelling of the Fort Street Union Station in Detroit, which is shared by the Pennsylvania, Pere Marquette, and Wabash companies. At the present time many of the offices in the concourse are not directly concerned with travellers' requirements, and these are to

be moved to a new second floor formed by erecting a ceiling over the concourse at a height of one-and-a-half storeys. A new wall will be built on the platform side of the concourse, with six large doors giving access to the platforms and two exits communicating directly with the street. The work will cost \$500,000 and is expected to be completed within a year.

More "Dome" Observation Cars

Another company, the Missouri Pacific, is to adopt two-level observation cars with a glass dome on the upper level giving an unrestricted view in all directions. A car of this type has been used successfully on the Chicago, Burlington & Quincy, and others with similar features have been ordered by the Baltimore & Ohio. The Missouri Pacific cars have been designed by General Motors and will be built by the Edward G. Budd Manufacturing Company. The domes will be made entirely of glass, and each will contain 12 seats on each side reached by a stairway from the coach floor level. The cars will be used in the company's Missouri River Eagle expresses.

EGYPT

Conversion of Engines to Oil-Burning

One of the major works carried out by the Egyptian State Railways during the war was the conversion of 503 steam locomotives to burn mazout (heavy oil) fuel. This step was made necessary by the difficulty, on account of shipping and other demands, of obtaining suitable coal. The conversion was carried out locally under the direction of the then C.M.E., Mr. C. E. Spurgeon, on whom it reflects great credit.

Not only did the conversion involve modifications to locomotives, but it entailed the construction of ground tanks at Cairo, Cairo Marshalling Yard, Pont Limoun (Cairo), Suez, Bulak, Dakrou, Wasta, Minia, Assuit, Sohag, Luxor, Asswan, Zagazig, Tanta, Port Said, Abu Zabaal Shops, Gabbary, Gabbary Power House, Hadra, Daba, and Mersa Matruh. The supplying of these tanks with mazout called for turning over to mazout traffic

a large number of cistern wagons, supplemented by the conversion of steel bogie opens for the same purpose, cistern wagons being in great demand by the military at the time.

Steam Railcars for Local Services

As part of its post-war programme, and to meet road competition, the E.S.R. are contemplating the use of light steam units, drivable from both ends, to work shuttle services between important centres. On the Cairo-Alexandria line, for instance, light steam units would run backwards and forwards between Cairo and Benha; Benha and Tanta; Tanta and Dammanhour; and Dammanhour and Alexandria.

Daring Mail Train Robbery

At 18.15 hr. on February 4, as train No. 83 (Luxor—Cairo) was leaving Wasta, six masked men jumped on the steps of the brakevan and entered the mail compartment. One carried a revolver, one a knife, and the other four carried ropes. After overpowering the four occupants of the compartment and binding them with ropes, they buried them under mailbags. One of the bags thus used contained old bank notes valued at £E.12,000 and another contained bullion and notes to the value of £E.36,000.

The thieves alighted from the train as it reduced speed before stopping at Giza, taking with them a sum estimated at about £E.20,000. The driver of a following passenger train, who had heard of the robbery, noticed three envelopes lying on the track near Giza, so stopped his train and picked up the envelopes, which were found to contain £E.4,000. Train 83 is scheduled to leave Wasta at 18.15 and arrive at Giza, the next stop, at 19.22 hr. Several arrests have been made.

Sidi Gaber Station Remodelling

Sidi Gaber Station, which is situated 4.5 km. outside Alexandria, serves an extensive residential district. The existing station is very old, and is quite inadequate to handle efficiently the heavy traffic now offering. Moreover, it is used by the King of Egypt when visiting Alexandria. Approval has recently been given for rebuilding the station, with con-

sequent track modifications, including the removal of the goods station.

In connection with this scheme, the Station Square is to be enlarged and the tracks are to be slewed to enable the station building to be erected on land now occupied by the platforms and main line. The new station will provide for up and down main lines, an up and down single line, and a loop siding. The earnings of this station in the financial year ending April 30, 1945, were £E.149,227.

FRANCE

Transport under Government Control

All means of transport in France are now being placed under the control of a single government department, the Ministry of Transport. Railways and roads, rivers and canals, seaports and airports are to be administered solely by the Transport Department, stated M. Jules Moch, Minister of Public Works & Transport, in a recent talk with French press representatives. The National Assembly, he said, had voted a budget of fr. 53,000 million (about £110,417,000 at fr. 480 to the £). To this must be added the supplementary budgets of the National Railways, Air France, the shipping companies and Office of Navigation, making in all fr. 180,000 million (£350,000,000). The transport personnel totalled 800,000 men.

SWEDEN

Gothenburg—Gävle Electrification

The Bergslagen Railways line from Gothenburg to Gävle (on the East coast) is now electrically worked throughout, the section from Ludvika to Daglören having been converted on February 18. Electrification of the whole route of 570 km. (354 miles) has been carried out in stages as follows: Gothenburg—Amal (1938-9); Amal—Kil (1940); Kil—Daglören (1941); Gävle—Falun, and Falun—Ludvika (1944), and Ludvika—Daglören (1946). Further details of the work were given in *The Railway Gazette* of September 10, 1943, at page 252.

"Pilfering on Railways"



A train carrying a £35,000 payroll for Palestine Railways' staff was derailed near Hadera, Palestine, on January 7, and the money stolen. The attackers placed an explosive charge under the track

A New York-Chicago "Direct" Railway Scheme

An ambitious plan for more efficient freight carrying

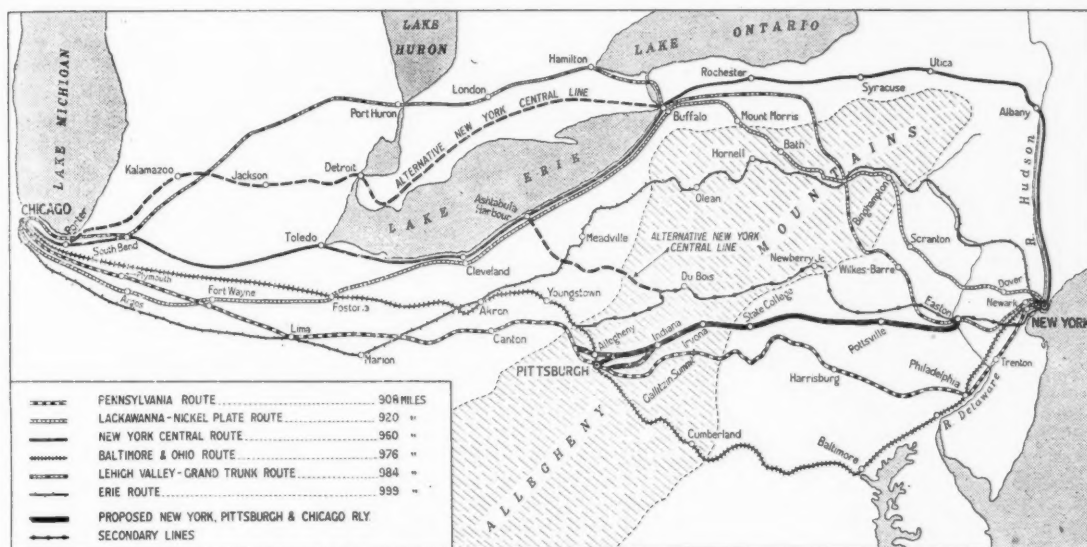
THERE are six standard railway routes between New York and Chicago, with mileages ranging from 908 to 999, but geographical and traffic conditions have combined to make all of them diverge considerably from a direct course. In these days of grandiose "planning," however, it is not without interest to recall a revolutionary scheme which was killed officially by the Interstate Commerce Commission exactly 20 years ago on economic grounds. This plan was designed to carry through freight traffic more efficiently than it had ever been carried before by the expenditure of some \$260 million of capital on the construction of a new 283-mile double-track railway which would have shortened the New York to Pittsburgh rail distance by nearly 80 miles and might have cur-

it turns westwards over level country towards Cleveland.

The plan for the "direct" line originated in 1903 with Joseph Ramsey, President of the Wabash and Wheeling & Lake Erie Railroads, as a route competitive to the main line of the Pennsylvania Railroad. He bought up the rights of every unbuild line which had been projected in the State of Pennsylvania along the general course that he proposed. The final route was then determined by careful surveying, and the well-known financier, E. H. Harriman, became sufficiently interested in the project to buy from Ramsey all franchise rights of the proposed line, at a cost of \$290,000. After the death of Harriman, these rights passed to the Harriman Estate, which renewed the charter in 1919.

ft. summit level at Gallitzin, 1 in 40 approach grades, and severe curvature. The new line would have been unique among American main lines of such length in having no level crossings, and even accommodation roads would have been provided with overbridges or underbridges. This proposed "direct" railway would have provided a link in a practicable main line between New York and Chicago only 830 miles long.

The new track would have begun at Easton, Pennsylvania, 77 miles west of New York, where it would have connected with the Lehigh Valley, Central of New Jersey, and other railways, and would then have cut westwards through Pottsville, and thereafter through some sparsely-populated mountainous country in an almost direct line to Allegheny City, on the Allegheny River opposite Pittsburgh, with three short branches only. That is to say, it would have been chiefly a link in a main through



Map showing the proposed New York, Pittsburgh & Chicago Railway, and the existing main lines between New York and Chicago

tailed greatly the running times between New York and Chicago.

The six standard routes between New York and Chicago are:—

Pennsylvania Railroad	908 miles
Lackawanna-Nickel Plate	920 miles
New York Central	960 miles
Baltimore & Ohio	976 miles (freight line)
Lehigh Valley-Grand Trunk	984 miles
Erie	999 miles

There is also a route on the map, only 895 miles long, by using the B. & O. from Chicago to DuBois, the N.Y.C. to Newberry Junction, and the Reading and Central of New Jersey thence to New York. This is by no means a recognised route. Again, an established route is *via* the N.Y.C. from Chicago to Newberry Junction and thence by Reading and C.N.J. to New York, which is 25 miles shorter than the N.Y.C. main line, but is inferior to the latter both in facilities and gradients.

Of the existing standard routes between New York and Chicago, the Pennsylvania and Lackawanna-Nickel Plate both cut through the Allegheny mountains with very severe grades. The New York Central uses the Hudson River valley northwards out of New York to Albany, before

After the first world war, the project was taken up by Lenor F. Loree, the well-known engineer, who had been a General Manager on the Pennsylvania Railroad at the early age of 38, but later became President of the Delaware & Hudson Railroad. In January, 1925, under his direction, the New York, Pittsburgh & Chicago Railroad was incorporated as a successor to four other companies bearing similar names, and in July of that year the plan was brought before the Interstate Commerce Commission for sanction.

The final proposal was considerably more ambitious than the original scheme. It was to be a double-track main line devoid of steep gradients and sharp curvature, and with viaducts, tunnels, and engineering features of considerable magnitude. By bold engineering across the State of Pennsylvania, the N.Y.P. & C. for more than 250 miles of its length would have had no gradient steeper than 1 in 333 against eastbound traffic, nor steeper than 1 in 250 against westbound, and the moderate curvature would have permitted unbroken maximum speeds throughout this length. This compares with the route of the Pennsylvania Railroad with a 2,194-

route, with relatively little originating traffic of its own. It was this fact which caused the Interstate Commerce Commission to refuse its sanction, for it was pointed out to Loree that traffic over the new route could be taken only from competing routes, particularly the Pennsylvania, and also the New York Central, Baltimore & Ohio, Erie, Lackawanna, Lehigh Valley, and other smaller companies which were participants in the existing through business, and which were all strong opponents of the N.Y.P. & C. scheme. Further, it would have been dependent for its through business on these rivals, with which it would have connected at both ends of its 283-mile route.

The failure of the scheme was thus due primarily to the fact that, except at its ends, the line proposed touched no important commercial, industrial, or mineral territory, as the Pennsylvania does, for example, at Philadelphia, Harrisburg, and Altoona, and that the prophecies of its promoters as to future traffic were purely theoretical.

For many of the above particulars we are indebted to a comprehensive article in our U.S.A. contemporary *Trains*.

The "Liberation" 2-8-0 Locomotive for Europe

The Vulcan Foundry Limited has completed the first locomotive of really international design for service in the rehabilitation of Europe

AS far back as 1943, preliminary consideration was given to the design of the "Liberation" locomotive which has just been completed at the works of the Vulcan Foundry Limited, Newton-le-Willows, Lancs. At that time a general review of the problems to be overcome in the future rehabilitation of Europe was being carried out in London by the Allied Governments, which fortunately had the foresight to realise the probable acute need after the war for large numbers of locomotives and rolling stock.

These Governments co-operated in the most praiseworthy manner with members of British Government Departments, and as a result of this close working, a Technical Advisory Committee on Inland Transport was formed, and it was this body which, through the Ministry of Supply, originally approached the Locomotive Manufacturers' Association in connection with the fundamental characteristics of the design. The Vulcan Foundry is one of the constituent members of this association, and it was decided that this firm should be entrusted with the preparation of the preliminary designs.

Members of the Technical Advisory Committee on Inland Transport of the Allied Governments formed a committee to consider these preliminary drawings and specifications; and both at meetings and also on visits to the Vulcan works they discussed the features of the design. The committee members, representing France, Belgium, Holland, Czechoslovakia, Poland, Yugoslavia, and Greece, were railway officers of their respective countries, and with their co-operation the designs were finalised and the preparation of manufacturing drawings was begun in 1944.

It was the task of the Vulcan Foundry staff to proceed with their design with a sufficient degree of imagination (plus actual knowledge of European operating conditions) for experts from all these different countries to be satisfied, and it is significant that only in minor details was their original design modified. The basic requirements were—

(1) The tractive effort should be 40,000–50,000 lb.

(2) The boiler should have a wide firebox with a grate area of 40–50 sq. ft.

(3) The axle load should be not less than 18 tons.

(4) The wheelbase should be suitable for curves of 100 m. (330 ft.) radius.

(5) The locomotive and tender should conform to the limitations of the "Berne" international railway gauge.

In endeavouring to meet these requirements, the Vulcan Foundry designers decided that—

(a) The wheel arrangement should be 2-8-0, with a double-bogie tender.

(b) To conserve labour, only this type should be built; also, manufacture must be relatively easy, from materials available in Great Britain.

(c) Because of probable lack of repair facilities in Europe, the design must be as simple as possible, consistent with good performance.

(d) Except for proprietary fittings, metric dimensions should be used, and the International Standards Association system of tolerances should be adhered to in order to facilitate the supply and fitting of spares.

(e) Features of the best British, American, and Continental practice should be included.

The resulting locomotive is a robust and massively constructed machine, and is very much what one might expect from a mixture of British, American, and Continental characteristics. The most obvious British feature is the retention of plate frames; American features are the cast-steel tender bogies; a noticeable Continental characteristic is the placing of a wide firebox over rear coupled wheels, necessitating a high-pitched boiler.

The first two locomotives of this order, which is for 120 machines, have been completed, and several more are practically ready for service. Of these, ten are for Luxembourg, and the remainder for Poland, Czechoslovakia, and Yugoslavia. The first locomotive has been named *Liberation*, and on its cab sides are affixed large metal plaques bearing the initials "U.N.R.R.A." Through the kindness of the builder we viewed this engine just after its completion at the Newton-le-Willows works. The locomotive was on view on March 6 and 7, and among those present were—

Messrs. R. C. Bond, Mechanical Engineer (Locomotive Works), L.M.S.R.; T. F. Coleman, C.M.E. Department, L.M.S.R.; R. A. Riddles, Chief Stores Superintendent, L.M.S.R.; J. Rankin, Locomotive Works Superintendent, Crewe, L.M.S.R.; E. A. W. Turbett, Assistant Chief Mechanical Engineer, Southern Railway; B. Spencer, representing Chief Mechanical Engineer, L.N.E.R.; G. C. Gold, Mechanical Engineer, Gorton, L.N.E.R.; V. Noeson, Industrial Adviser, Grand Duchy of Luxembourg; J. J. Ducenne, Belgian Economic Mission; Captain F. L. Wolfers, Belgian Economic Mission; Captain DeBest, Belgian Railways; Professor E. R. Hondelink, Director-General, Lt.-Colonel C. H. W. Edmonds, Director of Equipment & Supplies, Major W. R. Major, Chief Technical Officer, Messrs. P. de Groot, Jean Levy (France), and J. Zielinski (Poland), European Central Inland Transport Organisation; Messrs. A. E. English and A. F. Walters, Ministry of Supply; Messrs. H. P. Renwick, (late of) U.N.R.R.A.; W. A. Richards, Inspecting Engineer, Rendel, Palmer & Tritton; C. G. Hatherley, Consulting Engineer, Sandberg's; A. Neate, Regional Controller, Ministry of Supply & Aircraft Production, Manchester; H. N. Grundy, Regional Controller, Board of Trade; J. W. Vaughan, Secretary, and T. Greenwood, Technical Assistant, Locomotive Manufacturers' Association; G. H. Moberley, Director, Belships Co. Ltd.; L. E. Carr, Military College of Science; A. W. Lindridge, London Representative, Vulcan Foundry Limited; Colonel Anderson, representing Brigadier R. F. O'D. Gage, Director of Transportation, War Office.

The principal dimensions of the locomotive, in metric and in English units, are as follow—

Cylinders (two), dia. x stroke...	21½ x 28 in.
Coupled wheels, dia. ...	4 ft. 9½ in.
Pony truck wheels, dia. ...	2 ft. 9½ in.
Wheel-base, coupled ...	16 ft. 3 in.
... uncoupled engine ...	25 ft. 1½ in.
Working pressure ...	227 lb. per sq. in.
Heating surface:—	
Tubes and flues ...	2,098 sq. ft.
Firebox ...	175 "
Total evaporative ...	2,273 "
Superheater ...	660 "
Combined total ...	2,933 "
Grate area ...	44 "
Tractive effort at 85 per cent. boiler pressure ...	43,800 lb.
Adhesive weight ...	73.55 tons
Factor of adhesion ...	3.76
Weight of engine in working order ...	84.3 tons
Weight of tender in working order ...	58.2 "
Weight of engine and tender in working order ...	142.5 "
Water capacity of tender ...	5,500 gal
Coal ...	10 tons

A full description of the engine and tender will be given in a forthcoming issue. In the meantime, mention may be made of some of the salient features of the design.

The ample boiler had to be pitched with its centre line no less than 10 ft. above the rails to allow the wide firebox to be placed above the coupled wheels. The inner firebox is of copper, and there are three arch tubes. A 36-element superheater is fitted, and is intended to give a steam temperature of 700° F. at maximum engine performance. The firegrate is of the rocking type.

The cast-iron cylinders have a Continental pattern of pressure relief valve in front. The very large piston valves (12 in. dia.) are actuated by Walschaerts valve gear controlled by a reversing screw in the cab. The whole of the valve gear is in the same vertical plane.

The coupled wheels are of cast steel; all revolving weights and 30 per cent. of the reciprocating weights are balanced. The tyres are of Continental section, secured by retaining rings. Continental pattern draw-gear is provided at the front of the engine, together with Continental pattern side buffers. The frames are designed to permit the fitting of a central coupler if desired.

The Westinghouse automatic air-brake equipment, with independent locomotive brake, operates on all coupled wheels. The compressor is of the cross-compound type. Air-operated sanding gear is provided.

Electric lighting is supplied from a turbo-generator on the smokebox. A complete system of lights and inspection points is provided. Steam heating equipment is fitted, for use when working passenger trains.

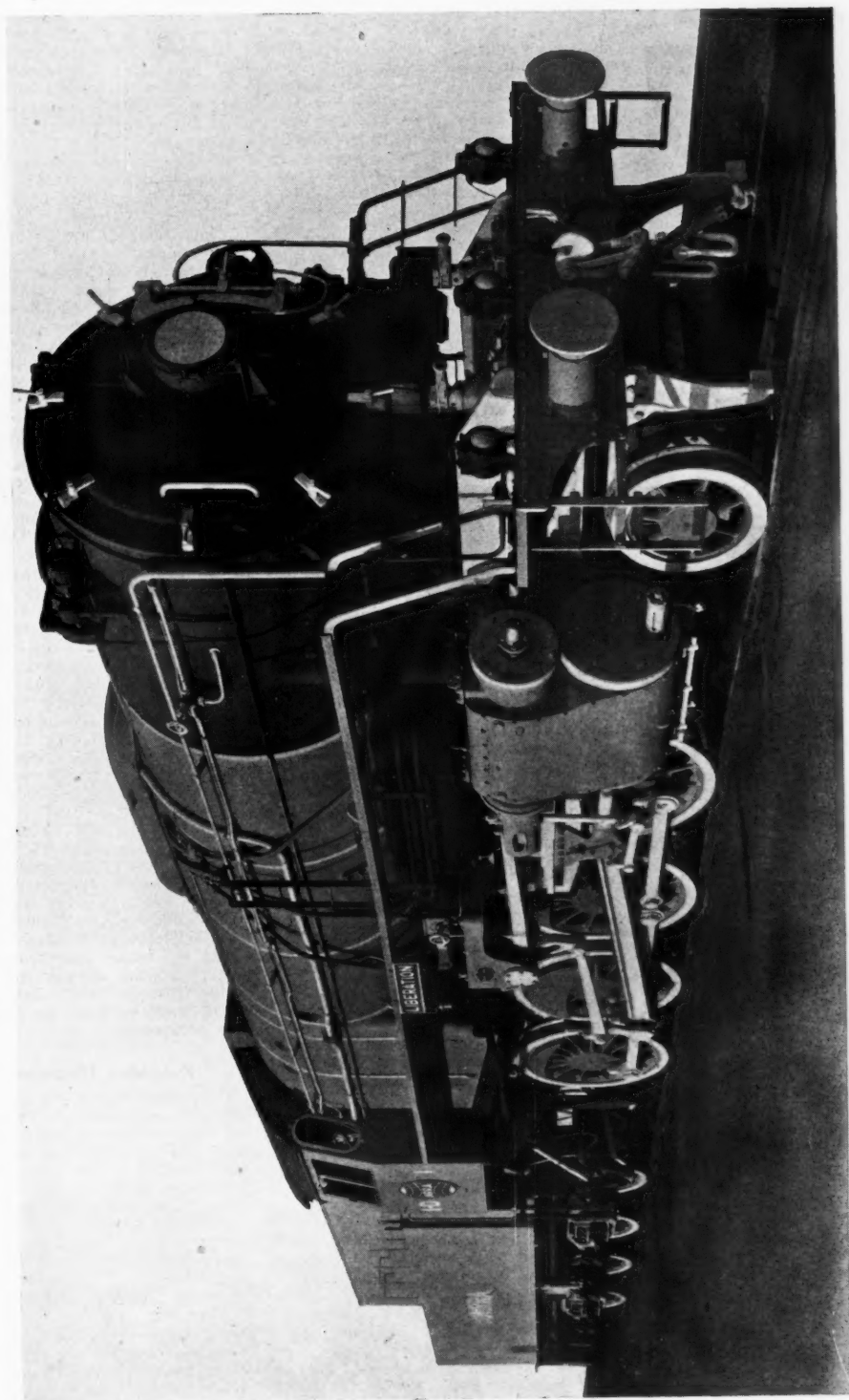
The most notable feature of the tender, which is of welded construction, is the use of American pattern cast-steel bogies, in which the axleboxes are cast integral with the side frames. Standard Continental drawgear is fitted. Special equipment for the locomotives has been supplied by:—

Superheater	.. The Superheater Co. Ltd.
Safety valves	.. R. L. Ross & Co. Ltd.
Blow-down valves	.. Everlasting Valve Co. (Gt. Britain) Ltd.
Water gauges	.. W. N. Baines & Co. Ltd.
Injectors	.. Davies & Metcalfe Limited
Pressure gauges	.. W. H. Bramall & Co. Ltd.
Piston rod packing	.. United States Metallic Packing Co. Ltd.
Buffers	.. Geo. Turton Platts & Co. Ltd.
Intermediate Draw-bar spring	.. Geo. Spencer Moulton & Co. Ltd.
Mechanical lubricators	.. C. C. Wakefield Limited
Air brake equipment	.. Westinghouse Brake & Signal Co. Ltd.
Asbestos mattresses	.. J. W. Roberts Limited
Air sanding equipment	.. Davies & Metcalfe Limited
Steam heating equipment	.. Gresham & Craven Limited
Grease lubricating	.. Tecalemit Limited
Tender bogie frames and spring assemblies	.. Davis & Lloyd
Electric lighting	.. J. Stone & Co. Ltd.
Messrs. Rendel, Palmer & Tritton, 55, Broadway, London, S.W.1, are acting as Inspecting Engineers for U.N.R.R.A.	

There are at present 120 of these locomotives under construction, for distribution to Poland, Luxembourg, Czechoslovakia, and Yugoslavia, where they will undoubtedly form very welcome additions to the rolling stock of those countries.

GREAT INDIAN PENINSULA RAILWAY ANNUITIES.—The forty-sixth annual meeting of the Annuitants will be held at Elmhyrst, Epsom Road, Guildford, on April 4 at 12 noon, in accordance with the provisions of the Great Indian Peninsula Railway Purchase Act, 1900. The Annuity Trustee to retire is Sir Charles H. Armstrong, who will be proposed for re-election.

British-Built "Liberation" Class Locomotives for the Continent



The first of the new "Liberation" 2-8-0 locomotives built by the Vulcan Foundry Limited for the Ministry of Supply at the request of the Advisory Committee on Inland Transport of the British and Allied Governments in London. See article on opposite page

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Temporary Reconstruction of Demolished Railway Bridges in France

A description of the more interesting methods used in rebuilding the larger bridges



Arches of Chaumont Viaduct before demolition

THE victorious sweep of the Allies through France last year left transport conditions throughout the country almost completely paralysed. Bombing of railways, roads, rivers, and canals to destroy bridges and other structures, sabotage by the French underground forces, and widespread systematic destruction by the retreating Germans destroyed communications in all directions. R.A.F. bombing in particular wrought havoc with railway bridges, bringing traffic on most of the main lines radiating from Paris to all parts of France temporarily to a standstill. Recent French Government reports put the total number of railway bridges of all sizes wrecked or damaged at 2,400, including 800 main-line and other important structures. Gaps of 300 or more ft. were made in some of the wrecked bridges, and in each of the long viaducts over certain rivers and valleys—such as the Loire at Orleans and Montlouis (near Tours) and across the Voise valley at Maintenon, on the line to Chartres—about 900 ft. of bridging were demolished.

Loire Bridge at Orleans

The primary military demand was the rapid restoration of railway traffic over main lines, where necessary, by the construction of temporary bridges. As soon as the enemy had been driven out of the various regions, both civilian and army engineers set to work to restore about 50 of the most urgently-needed wrecked bridges. Due to the lack of materials, tools, and engineering equipment of all kinds, the task facing the French engineers presented great difficulties, necessitating

much ingenuity in devising make-shift methods to overcome all obstacles. Aided by willing railwaymen, however, some of whom had been active in the French resistance movement, the work was undertaken in a vigorous spirit. In mid-September, as soon as the Germans were cleared out of the area, work was begun on the Loire bridge at Orleans.

Shuttle Train Service

Destruction of this bridge had severed direct communication between northern France and the centre and south-west of the country by cutting the main line running from Paris through Orleans to Vierzon, Limoges, and Toulouse. A shuttle train service was at first run between Paris and Orleans, and a similar service south of the river. Passengers coming from Limoges, for example, alighted at a temporary platform close to the south bank of the river and were ferried across to the Orleans side. The demand for the rebuilding of this bridge became more urgent with the reintroduction of essential civilian goods traffic bookings. Coal-mining in the north of France, for instance, was held up by the need for pit-props, which are brought from the forests of the Landes in the south-west.

Bridge Built a Hundred Years Ago

Built about a hundred years ago soon after railways were introduced into France, the original masonry bridge had 15 elliptical arches, each having an 80-ft. span and a rise of 26 ft.; the 14 piers were each 13 ft. thick at the base. Its total length between abutments was 1,375 ft., or just over a quarter of a mile. The piers had concrete foundations, except the last four and the abutment on the Vierzon side, which were founded on piles. Before the bombing of last year, the bridge was still in good condition, some of the arches and piers on the Orleans side having been strengthened in 1886, to meet the ever-increasing train-loads.

Counting from the Orleans side, the first arch was damaged on the upstream face, and arches numbers 2 to 11 were completely wrecked by the bombing, leaving a gap of 920 ft. Arches 12 to 15 on the Vierzon side were intact, but a wide breach was made in the 14th pier and a similar one in the abutment. In the gap only three piers, numbers 3, 4 and 10, were left practically intact, the remaining six wrecked piers being either split in two transversely or canted over. Pier 5 was driven 18 ft. down into the bed of the river by the force of the explosion. Stone work from the wrecked arches littered the river bed between the piers.

Temporary Bridge with Interlaced Tracks

As immediate rebuilding of the masonry arches was out of the question, it was decided to construct a temporary single-line-width bridge, using only half of each pier, so that on the other half permanent reconstruction could begin at any time. First attempts to obtain bridging material of the type used by French army engineers failed, and so it was then decided to construct a bridge having 185-ft. spans. Contracts were actually let to engineering firms, but it was found that construction and erection would take too long and so the project was abandoned.

Meanwhile, the French National Railways Company (S.N.C.F.) with much difficulty had succeeded in obtaining 60 rolled-steel beams; each 93 ft. long and one metre deep. As they required little labour for erection, these metre beams were used to replace the 10 demolished arches, six beams forming each span, three under each pair of interlaced rails. Each group of three beams was braced laterally above and below by timber crossbeams bolted together with 1-in. vertical rods, and by vertical angles at the sides also tied together with tie-rods. Similar means of bracing, coupled with angle irons, were used between the two groups of beams. Timber trestling was built up on half of each pier to carry these girder spans.

Interlacing of the up and down tracks was adopted to avoid the need for points at each end of the bridge, and similar arrangements have been made at the Maintenon and Neuilly-sur-Marne viaducts. This temporary bridge at Orleans was opened for traffic on November 22, within two months after free access to the ruins of the demolished structure became possible.

Loire Bridge at Montlouis

Floods, snow and ice last winter hindered the rapid reconstruction of another wrecked bridge over the Loire at Montlouis near Tours on the line from Paris to Bordeaux. This bridge had twelve elliptical arches each of 81-ft. span, and an overall length of 1,256 ft. Bombing had greatly damaged the bridge, and, when the Germans retreated on August 16, 1944, they almost completely destroyed it by blowing up the last five arches on the Paris side. Temporary reconstruction was begun early in September and despite the difficulties due to the hard winter, the bridge was reopened to traffic on February 11 last. As the illustration of this bridge on page 283 shows, its wrecked stonework was strewn right across the river bed from bank to bank.

The new temporary bridge consists of 12 girder spans, each 28 m. (92 ft.) long, supported by timber trestling erected on concrete foundations set on the ruins of the old piers. Two of the piers were in good condition and required no concrete. The six spans on the Paris side were supplied by bridge manufacturers, but the other six spans were drawn from military bridging stores, which had been successfully concealed from the Germans during the occupation.

Rebuilding Chaumont Viaduct

Numerous other complex problems confronted the engineers in the reconstruction of bridges elsewhere in France. One such task was the restoration of the lofty railway viaduct at Chaumont, which had a maximum height of 187 ft., but is 88 ft. high where the arches were wrecked by bombing. Chaumont is situated at a height of 1,023 ft. above sea-level, near the confluence of the Rivers Marne and Suize, and is 163 miles south-east of Paris on the line to Basle.

Here the bulk of the temporary work is to be used in the permanent reconstruction. It began with the erection of three heavily reinforced concrete columns on the bases of the three demolished piers and these were stiffened longitudinally with R.C. bracings at about 50 ft. above ground level and again just below the decking, the latter bracings being hidden by the timber girderwork seen in the illustration on page 284.

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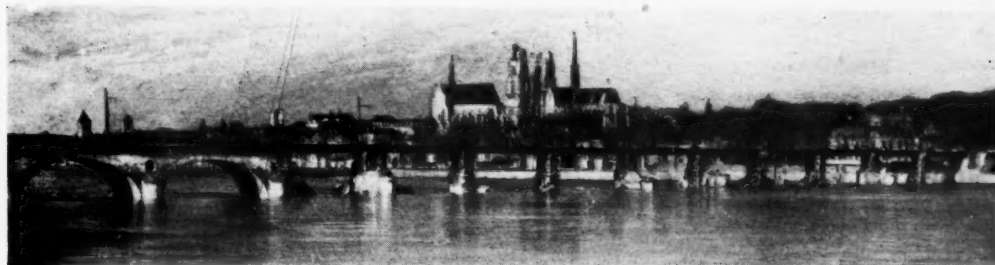
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Temporary Reconstruction of Demolished French Railway Bridges



General view of the Loire Bridge at Orleans as temporarily rebuilt with metre beams supported by timber trestles erected on the pier stumps and carrying an interlaced double track

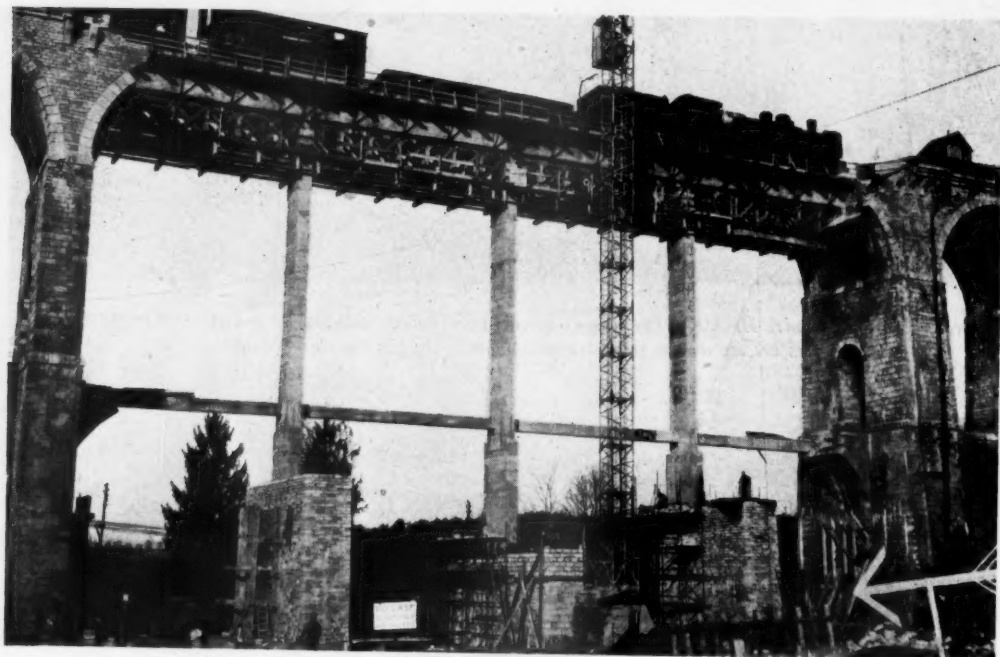


The Loire Bridge at Orleans as temporarily reconstructed. Note the metre beam girders and bracings, and timber trestles on the left-hand half of each pier stump



Montlouis Bridge over the Loire. The arches were temporarily replaced by steel girder spans on timber trestling resting on the pier foundations

Temporary Reconstruction of Demolished French Railway Bridges



Temporary single line structure replacing destroyed arches and piers at Chaumont Viaduct. The slender reinforced concrete columns are struted longitudinally at two levels and carry temporary timber girder-work supporting R.C. decking



Timber trestle viaduct built to replace temporarily the railway bridge over the Rhone at Avignon

This lattice timber girderwork resting on the columns is being used temporarily to support the R.C. decking carrying the permanent way. The viaduct is to carry two tracks as formerly, but at the moment has only one open to traffic. The timber girderwork is designed so as to permit of the building of the second track, and will eventually be dismantled, its place being taken by arching springing from piers, which are already being built up round the R.C. columns. Thus the R.C. columns and the decking, now temporarily resting directly on them, will, when the masonry is built up, be embodied in the permanent structure and the viaduct will regain its original appearance.

Restoration of Other Large Bridges

At the Viaduc de l'Arc on the line from Grenoble to Marseilles, two arches were wrecked, but the piers remained intact. There the piers were temporarily braced by crossbeams and struts to take the longitudinal thrust from adjacent arches. The arches have been temporarily replaced by girder spans.

To restore railway communication at Avignon, where the bridge crossing the wide expanse of the River Rhone was entirely demolished, a continuous timber trestle viaduct was the temporary solution adopted.

Most of the urgent temporary reconstruction essential for the restoration and maintenance of main-line traffic has now

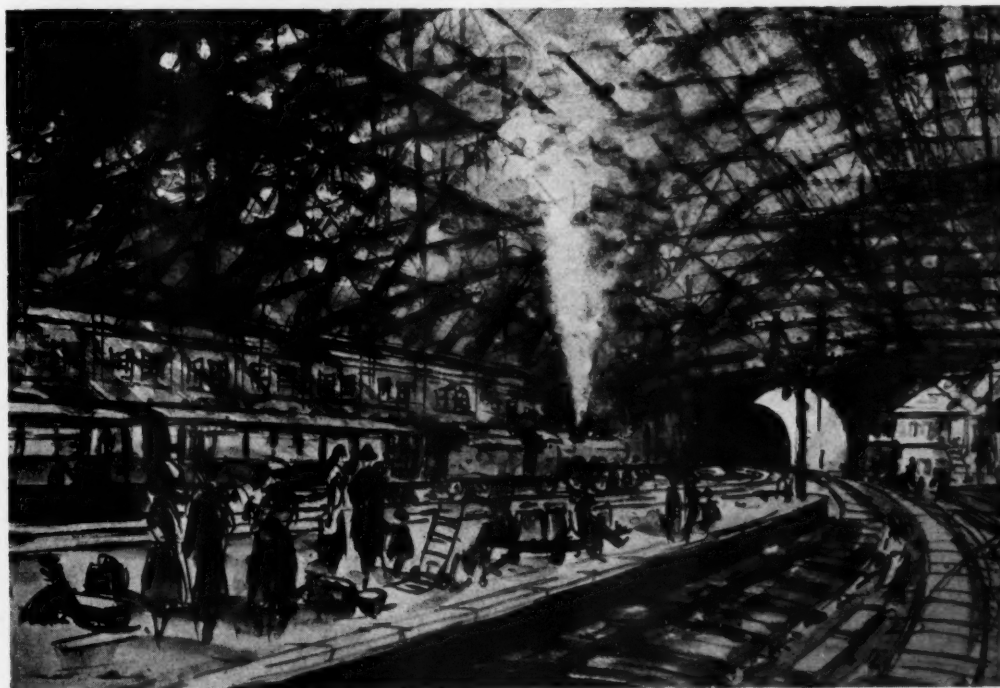


Arches at Viaduc de l'Arc replaced by steel girder spans and strutted to resist longitudinal thrust of adjacent arches intact

been completed. As much of the work in its early stages had an urgent military character, a considerable amount was done with the aid of the United States and British army engineers and material.

Railway reconstruction policy in future will be to undertake only permanent restoration work to reduce the final cost by cutting out expenditure on temporary structures.

Artist's Impression of Birmingham (New Street) L.M.S.R.



A crayon drawing by Mr. E. B. Musman, A.R.I.B.A., of part of the interior of the L.M.S.R. station at New Street, Birmingham

Renovated C.P.R. Passenger Rolling Stock



A view of a double bedroom arranged in modernised stock of the Canadian Pacific Railway



Bleached mahogany, instead of the traditional dark mahogany, is used in the interior of this C.P.R. dining car which has been modernised at the Angus shops. The ceiling and upper parts of the walls are decorated in pastel shades of ivory and green

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RAILWAY NEWS SECTION

PERSONAL

MINISTER OF TRANSPORT

The King has approved that Mr. Alfred Barnes, M.P., be appointed Minister of Transport. Mr. Barnes will be both Minister of War Transport and Minister of Transport until April 1, when the former office, if Parliament approves, will be abolished and all its functions exercised by the Minister of Transport.

G.W.R. DEPUTY-CHAIRMAN

The Great Western Railway Company announces that the Rt. Hon. the Earl of Dudley, M.C., has been appointed Deputy-Chairman, in succession to the Hon. Sir Edward C. G. Cadogan, K.B.E., C.B.

Mr. O. V. Bulleid (Chief Mechanical Engineer, Southern Railway) is President-elect of the Institution of Mechanical Engineers, and will take office at the annual general meeting on March 22.

We regret to record the death on March 2 of Mr. John Pike, O.B.E., who retired in 1928 from the position of Goods Commercial Manager, L.M.S.R. Mr. Pike was a Director of the Shropshire & Montgomeryshire Light Railway Company.

Mr. S. G. Wood, of the Southern Railway, who has been on loan to the Government since 1940, has been appointed Principal Transport Officer to the Ministry of Supply & Aircraft Production.

The British Electric Traction Co. Ltd. announces that Mr. Peter Yorke has been appointed to the executive staff of the company at 88, Kingsway, London.

L.N.E.R. APPOINTMENTS

Subsequent to the resignation of Mr. Crossley, Architect in the Area Engineer's Office, London, the opportunity has been taken of re-organising the work to cover architectural matters in the Chief Engineer's Office and in the office of the Engineer (London).

Mr. J. N. Harrison, a candidate from outside the service, has been appointed Assistant to Chief Engineer (Architectural) & Architect, Engineer's Office (London).

Mr. H. H. Powell, Chief Assistant Architect, Area Engineer's Office (London), has been appointed Second Assistant to Chief Engineer (Architectural) & Chief Assistant Architect, Engineer's Office (London).

Mr. B. Holroyde, Assistant Locomotive Works Manager, Doncaster, has been appointed Carriage & Wagon Works Manager, Stratford, in place of Mr. S. C. H. Fossett, recently appointed Assistant Docks Machinery Engineer.

Mr. E. H. Baker, District Locomotive Superintendent, Peterborough, has been appointed District Locomotive Superintendent, Gorton, in place of Mr. B. Adkinson, recently appointed District Locomotive Superintendent, Doncaster.

Mr. F. Probert, District Superintendent, Lincoln, has been appointed District Superintendent, Nottingham, in place of Mr. A. F. Moss, recently appointed District Superintendent, Glasgow.

Sir George Eustace Cuffe, formerly Director-General of Railways, Calcutta Area, who recently was appointed General Manager of the Bombay, Baroda & Central India Railway, received the honour of knighthood in the New Year Honours. He is the son of the Reverend George Cuffe, Rector of St. John the Baptist's Church, Coventry, and was born in that city on May 15, 1892. He was educated at Marlborough and at Jesus College, Cambridge,

ceeded Sir Robert Marriott as Director-General of Railways, Calcutta Area, in April, 1945, where he served until the post (a wartime one) was abolished. He joined the B.B.C.I.R. as General Manager during last December.

GREAT NORTHERN RAILWAY (IRELAND)

Mr. P. H. Patterson has been appointed Assistant Accountant, in succession to Mr. W. Sandow, who retires on March 31.

We regret to record the death on March 6 of Dr. James Graham McBride, M.B., Ch.B., F.R.C.S. (Edinburgh), who retired in 1939 from the positions of Medical Officer, North Eastern & Scottish Areas, L.N.E.R., and Consulting Medical Officer to the company.

Subsequent to the appointment of Mr. J. W. Hutton as Manager, Northern Counties Committee, L.M.S.R., Mr. W. S. Marshall, Assistant Operating Superintendent to the committee, has been appointed to succeed him as Secretary.

We regret to record the death, on March 11, at the age of 76, of Sir Charles Hipwood, K.B.E., C.B., until recently Director of the National Union of Manufacturers, and Second Secretary of the Board of Trade from 1929 to 1932.

SOUTHERN RAILWAY APPOINTMENTS

Mr. W. S. M. Stapleton to be Registrar as from April 1, on which date Mr. S. L. Smart will retire.

Mr. S. T. Willcox to be Technical Assistant for Locomotives. Chief Mechanical Engineer's Department, Waterloo.

Docks & Marine Department
Mr. J. H. Jellett to be Deputy Docks Engineer, Southampton.

Mr. R. E. Sinfield to be Divisional Marine Manager, Dover.

Mr. H. J. Grant to be General Assistant, Southampton.

Mr. H. J. Mathieson to be Chief Clerk, Southampton.

Mr. F. J. Ivimey to be Assistant Divisional Marine Manager, Southampton.

FUNERAL OF MR. ANDREW HOWIE

The funeral service of Mr. Andrew Howie, who was Joint Accountant, Southern Railway, from 1925 to 1940, took place at Croydon Crematorium on February 28. Among those present were:—

Messrs. S. E. Clark, Deputy Secretary, Southern Railway (also representing Colonel Eric Gore Browne, Chairman, and Brigadier L. F. S. Dawes, Secretary); R. G. Davidson, Chief Accountant, W. J. Sawkins, Assistant Accountant, and J. H. Laundry, Audit Accountant, Southern Railway; G. Morton, Chief Accountant, L.M.S.R. (also representing Sir William Wood, President, L.M.S.R.); G. H. Skelton, Assistant Accountant, L.N.E.R. (also representing Mr. L. C. Glenister, Chief Accountant, L.N.E.R.); A. G. Pollard, Assistant Accountant, G.W.R. (also representing Mr. C. R. Dashwood, Chief Accountant, G.W.R.); P. G. James, Accountant, L.P.T.B. (also representing Mr. L. C. Hawkins, Comptroller, L.P.T.B.); and Messrs. Moore (former Audit Accountant, Southern Railway), Wilson (former Assistant Audit Accountant, Southern Railway), F. S. Bridge, Featherstone, Smart, Beken, Jones, Hatcher and Barnden.



Sir George Cuffe

General Manager, Bombay, Baroda & Central India Railway, who has received the honour of knighthood

where he became in 1914 a B.A. with honours in Engineering. He joined the Royal Engineers in 1914, in which he served throughout the war of 1914-18. He was mentioned in despatches, and was demobilised in 1920, when he was a Captain. He served an apprenticeship on the London & South Western Railway in the Traffic, Signal Engineering and Electrical Engineering Departments, and went to India in 1923 as an Assistant Traffic Manager of the Assam Railways & Trading Co. Ltd. He became its Traffic Manager in 1924, and Agent & General Manager in 1928. Sir George Cuffe joined the Assam-Bengal Railway in February, 1935, as Agent, a designation which later was changed to Agent & General Manager. He was appointed General Manager of the Great Indian Peninsula Railway in July, 1940, but in 1943, when a considerable construction programme, to increase the military lines of communication into Bengal and Assam, was being carried out, he was transferred as General Manager of the Bengal & Assam Railway. During his time on the B.A.R. the daily "lift" into Assam was more than tripled. Sir George Cuffe suc-

Mr. Edward S. Hadley, a well-known former Great Western Railway personality, retired on February 28. From 1890 he served the G.W.R. for forty-eight years, about twenty of which were spent in traffic positions in South Wales, and the remainder in the General Manager's Office at Paddington. In 1919 he became the Editor of the *Great Western Railway Magazine*, in which capacity he succeeded Sir Felix Pole. Mr. Hadley retired from the railway in 1937, but joined Associated Electrical Industries Limited, as Editor of *A.E.I. News*, which post he has now relinquished. He will be remembered mainly for some outstanding innovations that he made. In his early days he conceived the G.W.R. train control system, and installed

senger Trains Inspector for the Heaton Norris District Control Area. In 1930 Mr. Taylor went to Crewe as Head Office Inspector in the department of the Divisional Superintendent of Operation. He was placed in charge of the Freight, Shunting & Traffic Analysis Committee in March, 1932, and in the same year was detached for special duties in the Chief Operating Manager's Department connected with the closer-working and pooling arrangements between the G.W.R., L.M.S.R., and L.N.E.R. In 1935 he was appointed Senior Clerk (Freight Services Section), Chief Operating Manager's Department, Euston, and in 1936, Assistant (Freight Services Section). In 1939 his duties were extended to deal with freight rolling-stock organisa-

tion. he became Superintendent of the Line's Runner at Preston, and in 1925 was made Assistant District Controller, Heaton Norris. Four years later he was appointed Operating Assistant to the District Traffic Superintendent, Abergavenny. He became District Controller, Huddersfield, in 1931, and District Controller, Birmingham (New Street) in 1932. During 1938-39 Mr. Shelton served on a headquarters committee which inquired into district control organisation; he returned to Birmingham (New Street) in July of the latter year, and in March, 1940, was appointed temporarily to the position of District Controller, Willesden. He was appointed District Goods, Passenger & Docks Manager, Barrow, in June, 1944.



Mr. E. S. Hadley

A pioneer of the Industrial Safety Movement



Mr. H. B. Taylor

Appointed District Operating Manager, London (Midland), L.M.S.R.



Mr. W. B. Shelton

Appointed District Operating Manager, London (Western), L.M.S.R.

it on the branch lines serving the Monmouthshire Valleys. Later he was sent by the Superintendent of the Line to inaugurate that system in the London, Bristol, Westbury, and Birmingham districts, and it has continued in operation. Over twenty years ago he founded the G.W.R. Social & Educational Union (since renamed the G.W.R. Staff Association) and the "Helping Hand" Fund, both flourishing whole-line organisations today. The latter has assisted more than six thousand distressed families. In 1913, in collaboration with Sir Felix Pole, he started the "Safety" movement in this country, and thus planted the sapling which has grown into the Royal Society for the Prevention of Accidents. Mr. Hadley is the author of several books, which include "Railway Working and Appliances," "The Shunter's Manual," a number of works on accident prevention, and others on a variety of subjects.

Mr. Harold Berwick Taylor, Assistant, Station Working, District Goods Manager's Office, Broad Street, L.M.S.R., who, as recorded in our January 25 issue, has been appointed District Operating Manager, London (Midland), is 48 years of age. He joined the L.N.W.R. in 1912. In February, 1917, he joined the Armed Forces, and served in France with the Royal Engineers (No. 6 Light Railway Operating Company), and was awarded the Meritorious Service Medal. He rejoined the L.N.W.R. in January, 1920, and in 1928 was appointed Pas-

senger Trains Inspector for the Heaton Norris District Control Area. In 1930 Mr. Taylor went to Crewe as Head Office Inspector in the department of the Divisional Superintendent of Operation. He was placed in charge of the Freight, Shunting & Traffic Analysis Committee in March, 1932, and in the same year was detached for special duties in the Chief Operating Manager's Department connected with the closer-working and pooling arrangements between the G.W.R., L.M.S.R., and L.N.E.R. In 1935 he was appointed Senior Clerk (Freight Services Section), Chief Operating Manager's Department, Euston, and in 1936, Assistant (Freight Services Section). In 1939 his duties were extended to deal with freight rolling-stock organisa-

tion. We regret to record the death, at the age of 76, of Mr. W. M. Dyball, O.B.E., formerly District Superintendent, Brighton, for the L.B.S.C.R., and for a short period for the Southern Railway, who retired in 1923.

Mr. William B. Shelton, District Goods, Passenger & Docks Manager, Barrow, L.M.S.R., who, as recorded in our February 22 issue, has been appointed District Operating Manager, London (Western), joined the former L.N.W.R. as a probationer in 1915. He obtained experience at Queens Park, Kilburn and Willesden until early in 1917, when he was commissioned in the Royal Flying Corps as an observer in kite balloons. After serving in Aden and Palestine, he returned to railway service in July, 1919, and in 1920 was appointed Runner to the District Superintendent, Manchester. At the end of 1921

The Secretary of State for Foreign Affairs has compiled the following list of the persons on whom immunities and privileges have been conferred by the Diplomatic Privileges (the Transport Organisation Amendment) Order in Council, 1945, the list taking effect from December 20, 1945:—

Representatives of Member Governments on the Council of the European Central Inland Transport Organisation: Dr. Karol Alexandrowicz (Poland); Mr. L. A. Clasen (Luxembourg); Mr. Erik Colban (Norway); Mr. P. Baracek-Jacquier (Czechoslovakia); Mr. Constantine Koukin (U.S.S.R.); Mr. Dimitri Lambros (Greece); Mr. Frederick Osterieth (Belgium); Mr. J. C. Paris (France); Dr. E. F. Penrose (U.S.A.); Dr. Vladimir Rybar (Yugoslavia); Mr. Klaas Vonk.

Members of the Executive Board of the European Central Inland Transport Organisation: Mr. J. H. Gildea; Mr. Paul de Groot; Mr. Jean Levy; Major-General M. C. Obydin; Mr. Bohumin Sorma; Mr. Joseph Zielinski.

Officers of the European Central Inland Transport Organisation holding the office of Director-General or Deputy Director-General, or holding an office which carries a rank not lower than that of Deputy Director-General: Mr. E. R. Hondelink (Director-General); Mr. Emile Edouard Desorgher (Director); Dr. Jan Hostie (Legal Adviser); Commandant H. M. F. Mathe (Director); Mr. Otto Popper (Director).

Great Western Railway Company

Administrative and staff changes—Financial results—Passenger and freight services—New works and developments—Research work—Staff matters—Civil aviation—Nationalisation

The annual general meeting of the Great Western Railway Company was held on March 6 at the Great Western Railway Hotel, Paddington Station, W. The Rt. Hon. the Viscount Portal, P.C., D.S.O., M.V.O., Chairman of the company, presided.

The Secretary, Mr. F. R. E. Davis, C.B.E., having read the notice convening the meeting,

The Chairman said: My Lords, ladies, and gentlemen; this is the first occasion upon which I have had the privilege of addressing you in the capacity of Chairman of the board of directors and I am sure you will extend to me the indulgence which is customary on such an occasion. When last we met in this hall we were in the midst of war. Since then, I am thankful to say, victory has crowned our national efforts and we are now faced with the problems of peace instead of the trials of war.

So far as matters of administration are concerned, there has been only one change on the board of directors during the past year, namely, the re-election of the Rt. Hon. Harold Macmillan. Mr. Macmillan, you may recall, was a director of the company from 1929 until 1940, when he vacated his seat on the board on becoming Parliamentary Secretary to the Ministry of Supply, followed later by his appointment as Resident Minister in the Central Mediterranean. We are glad to welcome him back and to know that we shall again have the benefit of his wide knowledge and experience in dealing with the affairs of the company.

Before I refer to the financial results, there are some other changes which call for special mention at this stage. In January last, the Rt. Hon. Lord Plender, G.B.E., who had been an Auditor of the company since 1921, passed away, and all of us who were associated with him deplore his loss. Lord Plender had been connected with the company for very many years, not only in his capacity as an Auditor, but also as a member of the firm of Deloitte, Plender, Griffiths & Company, and we were very appreciative of the valuable guidance and advice which he freely put at our disposal in connection with the financial affairs of the company. The Audit Committee has recommended Sir Alan Rae Smith, who is a senior partner in Deloitte's, to fill the vacancy caused by Lord Plender's death, and a formal resolution to this effect will be put before you later in the meeting.

Another great loss was sustained by us last month through the death of Mr. F. W. Lampitt, who was appointed our Chief Goods Manager in 1942. For many years prior to that, he occupied various positions in the same department, and had he lived he would shortly have completed fifty years of service with us. He was a most zealous and faithful servant and his passing is a great loss both to the company, whose interests he had so deeply at heart, and to many of our traders by whom he was held in high esteem.

One of our chief officers—Mr. P. W. Pine, the company's Solicitor since 1941—retired in October last. Mr. Pine served the company faithfully and efficiently during the whole of his service of twenty-nine years, and he carries with him our

best wishes in his retirement. Mr. M. H. B. Gilmour, who was formerly the Assistant Solicitor, has succeeded Mr. Pine as the company's Solicitor.

Financial Results

The accounts are still in the abridged form sanctioned by the Minister of War Transport on the outbreak of hostilities, and there are several items which call for special comment. The net revenue consists of the fixed annual payment due to us under the Railway Control Agreement, to which is added £272,982 representing the net income from sources outside the scope of that agreement. After including the balance of £311,975 brought forward from last year and transferring £150,000 from the contingency fund, the amount available for dividend is £5,755,705. This enables us to recommend a dividend of 3 per cent. for the half-year ended December 31 last, making 5 per cent. for the whole year, with a carry forward of £269,305. The dividend is $\frac{1}{2}$ per cent. in excess of that paid for the three previous years and the carry forward has been reduced by £42,670.

The contingency fund, which, as you know, is a free reserve, stands at £4,803,475 after making the appropriation of £150,000, and is £1,840,508 in excess of the figure at which it stood at December 31, 1939. The major part of this increase represents reserves no longer required and had it not been for the uncertainties of the war situation, some of it would have been brought into the net revenue distribution during the past five years. In these circumstances, the directors consider they are fully justified in recommending the increased dividend.

Our investments in Government and similar securities amount to approximately £18,700,000 and their book value as at December 31 last was below the market price at that date. The securities are all redeemable at fixed dates which take due regard of our future requirements.

War Damage

The paragraph in the directors' report dealing with this matter states briefly the present position, and when the liability of the company has been determined finally, we will consider the most appropriate method of dealing with it. I may say however that the effect on net revenue is not likely to be appreciable.

Arrears of Maintenance

The net revenue has again been charged with a standard allowance for maintenance equivalent to the average amount charged in the years 1935/6/7 for the repair and renewal of assets of every description, adjusted for variation in assets and for increased costs. The amount unpaid to December 31 last was upwards of £18 millions and this sum has been paid into the trust fund to cover the cost of overtaking the arrears which have accumulated during the war years. In addition—as you were told last year—the Minister of War Transport will make such allowance in respect of abnormal wear and tear as shall be shown to his satisfaction to have accrued over the whole period of control, after taking sub-normal wear and tear into account.

As in previous years, the Ministry of War Transport will shortly be publishing

the usual "White Paper" giving the results for last year. The present year will be one of transition. Our receipts from wartime traffics are declining rapidly and, while we expect a gradual increase in receipts from other traffics, much will depend upon the rate at which trade and industry in this country can change over to peacetime production. The resumed publication of railway traffic receipts every four weeks will afford some guide as to the progress which is being made in this direction, but, in any event, we cannot expect to maintain the volume of traffic at its wartime level or the benefit of the savings resulting from the restrictions which had necessarily to be placed under war conditions on passenger travel and the conveyance of freight traffic. With these changes, it is evident that the time is rapidly approaching when the Government will have to give consideration to the question of raising railway rates and charges. The present level is only 16½ per cent. above pre-war, whereas on the expenditure side the level of wage rates has been increased by 57 per cent., and the price of coal by 123 per cent. Making every allowance for the fact that our expenditure during the past year was swollen by abnormal traffic working conditions and prices of materials in regard to which some alleviation may be anticipated when conditions become more normal, it is clear that an increase in charges more commensurate with the rise which has already taken place in the general level of prices will be necessary to ensure financial stability. Meanwhile the railways remain under Government control and an Order in Council has been made recently under the Supplies & Services (Transitional Powers) Act, 1945, which enables control to be continued for a further five or six years.

Passenger and Freight Services

Since the cessation of hostilities we have been giving special attention to the many problems which arise in connection with the reversion to peace conditions and the provision of improved train services and other facilities. After six years of war, during which we dealt with the largest volume of traffic in our history, but were unable to maintain our lines and rolling stock to the customary standard, improvements can only be effected gradually and it will take some time to restore our pre-war services and operate them with our former efficiency.

The end of the war has removed the strain on our staff who no longer have to work under blackout and other restrictive conditions, but we are still being called upon to handle a vast amount of military traffic and Government stores. The conveyance of this traffic involves the running of a very large number of special trains daily which seriously interferes with the working of our scheduled passenger and freight train services.

Our main concern at the present time is in regard to the passenger services. The number of passengers originating on our system, exclusive of season ticket holders, is still very greatly in excess of pre-war, and we anticipate a large increase in holiday traffic during the coming summer. In the circumstances, we are making every effort to augment the services as rapidly as possible. We have already restored more express trains and many other services have been accelerated, but the passenger train service is still 18 per cent. below pre-war level and can only be increased as and when the necessary rolling stock and train staff can be made avail-

able. I am glad to say there has also been a considerable improvement in the general timekeeping of the trains, but we are very conscious of the fact that the standard of punctuality still leaves much to be desired. The delays which take place, however, are to a large extent due to circumstances beyond our control. With a reduced service we can accommodate the passengers only by running abnormally long trains and this imposes a heavy strain on both the locomotives and the operating staff, and is a frequent cause of delay, as the trains have often to draw up twice at platforms which were designed to deal only with trains of ordinary length.

The main cause of the present unpunctuality is the loss of time incurred in running due to the general deterioration in the condition of the locomotives, which can be made good only over a long period, and to the inferior quality of coal which we now have to use. Another serious cause of delay is the large number of speed restrictions which have to be imposed in connection with the repair and renewal of the tracks, and as there is a heavy accumulation of arrears of maintenance to be overtaken, these delays are likely to increase.

With regard to the freight services, we have already restored a number of express vacuum-fitted freight trains and further services will be provided as soon as circumstances permit. We have also reinstated our railhead delivery and country lorry services at the most important centres. We are introducing zonal schemes under which the collection, delivery, and transport of small consignments of freight traffic is concentrated at fewer points, which enables more speedy rail transits to be given. A case in point is in the Birmingham area where the traffic previously handled at twenty-two stations or depots is now dealt with at five. Special attention has been given to the conveyance of coal and I am glad to say we have had no difficulty in meeting the transport requirements of collieries situated on our system.

New Works and Developments

At our meeting last year reference was made to the very large number of new works and improvements carried out on the company's system to meet wartime requirements. The circumstances which necessitated the provision of these facilities, such as the diversion of shipping to the Welsh ports and the altered nature and flow of traffic resulting from war requirements, have radically changed since, and we have now to consider how best we can meet the future needs of our customers which, even in the case of many well established industries, have also altered materially as the result of the war. Moreover, we have to cater for the many new factories which have been, and are being established on our system, and this entails the provision of extensive private sidings and other facilities essential to their development. Work of this nature must obviously be given a high priority.

We are anxious to take in hand the completion of the outstanding portion of the large programme of new works which we undertook to carry out under the terms of the Railways (Agreement) Act, 1935. These works, which had to be deferred at the outbreak of war, include the completion of the doubling of the Porthcawl Branch and the reconstruction and remodelling of Porthcawl, Banbury, Plymouth, Exeter, Paignton, Penzance, Weymouth, Southall, and Oxford

Stations and other works. We have also in contemplation a long-term programme for the modernisation of many other important stations and good depots and are devoting special attention to the question of raising the standard of our station amenities generally, including waiting rooms, refreshment rooms, and lavatories.

In addition to these schemes we have also to complete the electrification of the lines between North Acton and Ruislip, in regard to which the Ministry of War Transport has indicated that a high priority will be given to the allocation of the necessary labour and materials.

With regard to our South Wales Docks, there are conflicting views as to the future of the coal export trade, but there can be no doubt as to the desirability in the national interest of making every effort to bring about a revival of this important trade at the earliest possible date. In these circumstances we feel we must retain our existing coal-shipping facilities until future requirements can be more clearly visualised, and do all we can to assist the development of other export and import traffics. With this end in view, we propose to build new and fully-equipped transit sheds at Newport, Cardiff, and Port Talbot, and provide such other facilities as may be found necessary.

More Dry Docks

One of the most urgent needs of South Wales at the present time is the provision of dry-docking facilities capable of accommodating the larger types of cargo vessels now being generally constructed. To meet this need your board, acting on the advice of the Ship Owners' and Ship Repairers' Associations, as representing the users of the South Wales ports as a whole, has decided to widen the existing commercial dry dock at Barry to a width of 80 ft. and Sir William Halcrow & Partners have been entrusted with the preparation of the necessary plans. At Plymouth we propose to provide some additional transit sheds and to modernise the ocean passenger traffic accommodation, as it is obviously desirable that visitors to this country should receive a good impression on their arrival.

The proprietors may be aware that two of the steamships formerly used on the Fishguard-Rosslare route, which did magnificent work during the war as a hospital carrier and troopship respectively, were sunk by enemy action. We have placed orders for two new vessels of improved design and it is anticipated that the first of these will be completed in the spring of next year.

As regards the rolling stock, the over-taking of the very heavy accumulation of arrears of renewals of locomotives and carriages which accrued during the war period will fully occupy our works for some years to come and, in addition, we have placed orders with outside firms for some diesel-electric shunting engines and 70 passenger coaches which was the maximum number of coaches we could get constructed during the present year.

Our programme of new works also contemplates the provision of a number of new hotels at important centres including Swansea and Cardiff, and the improvement of our existing hotels at Paddington and St. Ives. Our Moretonhampstead hotel, which I am glad to say has recently been de-requisitioned, requires considerable renovation before it can be re-opened, and we intend to complete as soon as possible the new wing which was planned before the war. Our plans for the modernisation of the Grand Pump

Room Hotel at Bath, as soon as it is de-requisitioned, are also well advanced.

In present circumstances it will readily be appreciated that progress in carrying out our programme of new works is likely to be retarded by the general shortage of labour and materials and the priority which must necessarily be given to the building of houses and other requirements in connection with the development of our export trade.

Research Work

The research work in which we are now engaged covers not only technical matters but also improved methods of working and the greater use of mechanical appliances generally. We are naturally anxious to take full advantage of the technical improvements and wide range of new materials which has been developed during the war. For example, we have under consideration plans for the construction of a gas-turbine locomotive based upon the experience obtained in connection with jet propulsion, and we also anticipate being able to effect some improvements in our track and signalling equipment. In addition, many new materials have been embodied experimentally in some of the re-conditioned restaurant cars now in service and in the new coaches now under construction, as well as in other directions.

In view of the difficulties we are experiencing in connection with our coal supplies and the prospect of a continuance of the present high prices, we have been experimenting with oil-burning locomotives for freight traffic. I am glad to say the results have so far proved to be entirely satisfactory and we propose as soon as possible to extend our experiment to passenger train engines. We feel that this is a prudent course to adopt and that the experience gained has fully justified the relatively small expenditure we have incurred.

Staff

In the early spring of last year the trade unions submitted claims of a far-reaching character for increased rates of pay and improved conditions of service. These claims were considered by the Railway Executive Committee as agent of the Minister of War Transport and a settlement was effected under which new minimum rates were fixed for all wages grades and the guaranteed week extended to cover the workshop staff. Additional holidays with pay were also granted. Another wage settlement affecting the company was the increase in the dock labourers' minimum wage from 16s. to 19s. a day as recommended by the Evershed Committee.

War Services

I need hardly say that we are intensely proud of the achievements of our staff, men and women, during the long war years, both in H.M. Forces and in the home services. Since the end of 1945 there has been some improvement in the rate of demobilisation. The number of staff released from the Services and welcomed back to employment with the company is approximately 3,000 up to the first of last month, leaving about 11,000 still in the Services.

Casualties sustained by members of the staff whilst on active service include 573 killed in action or died of wounds or disease, and 130 reported missing. Of the 274 staff taken prisoner of war the majority are now safely back in this country, but 37 remain unaccounted for. During the war 68 of the company's servants were killed and 241 injured in air raids while on duty and 88 killed and 255 injured off duty.

Notifications are still being received of

decorations for bravery and awards for meritorious service gained by members of the staff whilst on active service and it is not yet possible to compile a complete record of such honours. Civilian awards gained by the staff from the outbreak of war to the present time include the following:—

George Cross	1
C.B.E.	1
O.B.E.	6
M.B.E.	24
George Medal	7
British Empire Medal	70
Commendations	24

I should like on your behalf to pay a tribute to our staff in all ranks and grades, both men and women, for their contribution to the war effort. Many of those serving with H.M. Forces acquitted themselves most bravely and not a few made the supreme sacrifice. Thousands of others, through force of circumstances, remained behind to carry on and many of them underwent ordeals at the hands of the enemy, as severe in character as those entailed through service with the Colours. The memory of their achievements adds lustre to the proud record of this great company.

Housing Accommodation

A particular matter affecting our staff which is causing us serious concern is the shortage of housing accommodation. Our activities, as you will appreciate, cover a very wide area and, as our men frequently have to be moved from one centre to another to meet changing traffic requirements, our difficulties are greater than those of most other industries. We were faced with a somewhat similar position after the first great war and for this reason we obtained Parliamentary powers in 1923 which enabled us to co-operate with the staff in the formation of housing societies, at various places on the system, as the result of which a large number of houses were provided for the staff, and many more provided by assistance given in other ways.

In August, 1944, your board, in anticipation of the present difficulties intimated that it was prepared to consider the extension of existing housing estates and the formation of additional housing societies in new centres. The introduction of the Housing (Financial & Miscellaneous Provisions) Bill, which provides for the payment of subsidies, has enabled the company to put forward schemes which, with the financial assistance contemplated by the Bill, should enable houses to be provided and let at a rental which our employees can reasonably be expected to pay. Negotiations are now in progress with the Banbury, Plymouth, Swansea, and Ealing Corporations and the Hayes and Wallingford Councils, and if, as we hope, it is found possible to proceed with schemes at these centres, consideration will be given to the possibility of extending our activities to other centres where the need for housing accommodation is acute.

Civil Aviation

In March, 1945, the Coalition Government, after consultation with the interests concerned, announced its policy in regard to civil aviation, which provided for the railways to have a substantial financial interest in a proposed corporation to operate services within the British Isles and to the Continent of Europe. This policy was reversed by the present Government which in November, 1945, announced that all air transport services of the United Kingdom would, as public services, be placed under national ownership and control, and that existing surface transport

interests would not be allowed any financial participation. From the transport point of view we regret this fundamental change of policy and we so informed the present Minister of Civil Aviation.

Throughout the war all internal air services were operated on behalf of the Government by the railway associated air companies through an organisation known as the Associated Airways Joint Committee. Pending the formation of a new Corporation, the railway companies at the request of the Minister of Civil Aviation have agreed that the Joint Committee during the transitional period should assist the Government by carrying on its operations within the British Isles until further notice under the terms of the present agreement.

The questions of compensation for physical assets, development expenditure, and the future employment of staff now employed with the railway associated air companies, have been the subject of representations to the Minister of Civil Aviation and we are pressing for a satisfactory settlement.

Nationalisation

I now come to the question of nationalisation of railways, which is all important. As you probably know, the Lord President of the Council announced in the House of Commons on November 19 last that it was the intention of the Government during the life of the present Parliament to introduce measures designed to bring transport services essential to the economic well-being of the nation under public ownership and control. He stated that powers would be taken to bring under national ownership the railways, canals, and long-distance road-haulage services, and indicated that consideration would be given to various alternatives for bringing road passenger services and dock and harbour authorities within the scope of the national scheme.

The objects which the Government hopes to achieve and the reasons which have actuated its decision must necessarily remain a matter of conjecture until a Bill has been introduced. It has long been recognised that the main transport problem to be solved is how to secure a greater measure of co-ordination between the various forms of transport so that those responsible for the provision of transport services would be able to meet the requirements of the public to the best advantage.

The problem of road-rail freight competition has still to be dealt with, but it is by no means insoluble. The main difficulty in the past was that there was no representative body with power to negotiate on behalf of the road haulage industry. The recent formation of the National Road Transport Federation has overcome this difficulty and, with the approval of the former Minister of War Transport, negotiations have been taking place between the railways and the federation. The road hauliers operating services in competition with the railways have indicated that they are prepared to assume the obligations appropriate to the running of a public transport service and, in our view, it would be in the national interest to give the transport interests concerned a reasonable opportunity of submitting their own proposals for the co-ordination of all forms of internal transport before any radical change is made by the Government. So long as these proposals ensure that the traders will be provided with adequate alternative services competing on fair terms and be left

free to select the form of transport which they consider most suitable for their own business, they will be giving effect to the objectives which were recommended by the Transport Advisory Council in 1939. I am sure the users of transport, too, would favour this alternative as offering the most practical solution of the road-rail problem.

The Lord President of the Council, when broadcasting to America last August, is reported to have said: "There is only one justification for either nationalisation or private enterprise—that is efficient service in the interest of the nation. If only nationalisation will secure this result then we must nationalise. But if private enterprise can do it, well, then, let private enterprise remain." If this is to be the test, neither the record of the railway companies nor the experience of nationalisation of railways in other countries would justify the policy which the Government propose to adopt.

Both under peace and war conditions the achievements of the British railways can be looked on with pride and satisfaction. Even the severest critics of the railways acknowledge that the policy of preparedness pursued by the companies in the period before the war proved of inestimable value in the trying years which followed. The railways certainly could not have met the heavy demands made upon them during the war if they had not been well organised and their lines and equipment maintained at a high standard.

Our main difficulties at the present time are largely the result of our inability to obtain during the six war years the necessary labour and materials to maintain our undertaking at the pre-war level, and if, during the long periods of depression which preceded the war the railways had allowed their undertakings to depreciate to the same extent as was inevitable in the war years, the results might well have been disastrous.

The working of the railways during the war period has evoked the warmest tributes from the former Prime Minister, the heads of all service departments, the present and former Ministers of War Transport and other Government departments, and it is hardly likely that anyone would now question the efficiency of the service given by the railways in the furtherance of the war effort.

We feel we can fairly claim to have fulfilled our primary duty, which is to give efficient services to the public under both peace and wartime conditions, and that in this respect we have observed the conditions which the Lord President of the Council has stated would justify the Government in allowing any industry to remain in the hands of private enterprise. If so, there is surely even greater justification in considering the position of a statutory undertaking like ours.

Whatever may have influenced H.M. Government in deciding that its proposals are desirable in the national interest, there must inevitably be grave doubts amongst the users of the railways, and the staffs employed in operating them, as to the need for such a fundamental change as would be entailed by nationalisation. Our past experience has taught us many useful lessons and established many useful precedents in the administrative machinery of the railways and it would be regrettable if force of circumstances compelled a change as a consequence of the State becoming the controlling body. I have particularly in mind the conciliation machinery for settling questions of wages and conditions of service of railway staff. I

think this is looked on as being the most highly developed in the world, and it has worked so well that there have been no major disputes for 20 years. This machinery, which is another example of pre-war efficiency, might well be followed in other spheres of industry.

As it functions now, if the railway companies, and their employees, are unable to reach agreement, the matters at issue are referred to a National Wages Tribunal which is an entirely independent body. But if the Minister by virtue of his responsibility for the administration of transport became party to proceedings before the Tribunal and a decision of the Tribunal was subsequently raised in Parliament, he might, in certain circumstances, be put in the position of becoming judge in his own cause and would, I am afraid, often be faced with political pressure.

The test of any well-run business must surely be whether it is able to meet the requirements of its customers in an efficient and economic manner. This is the objective which is uppermost in the minds of those who administer the affairs of this company. The railways as statutory companies are subject to such regulations as Parliament may consider to be necessary in the national interest, and while it is our policy to have regard to national interest at all times, we have a special interest in fostering traffic within our own particular area and in endeavouring to satisfy our own customers. To give a simple illustration; our policy in connection with the purchase of the principal commodities we use such as coal, iron and steel, etc., has been to give preference, other things being equal, to traders situated on our system whose traffic we convey. We also do all we can to encourage the establishment of new businesses on our line by offering the best possible facilities and service, including the quotation of such exceptional rates as may be justified and necessary for the future development of the concern. Our officials make a point of keeping in close touch with all traders in order to ensure that the transport requirements are fully met and to assist where possible in the development of their business. Thus there has grown up a relationship in which the personal factor has played a prominent part in business development, and I know from my own knowledge that this policy has contributed very materially to the productive output.

When we remember that there have been no less than sixteen Ministers of Transport during the last 26 years, one can hardly expect continuity of policy to be maintained, and there are many who, like ourselves, feel that advantages of the nature to which I have referred will be lost if the direction of future policy should become centralised under the general direction of the Ministry of War Transport.

The present system of administration with its flexibility in the fixation of rates and freedom to meet local and other conditions has facilitated many industrial developments and by so doing materially helped to alleviate the depression which not so long ago existed in different parts of the country. A good illustration of the justification for this policy is the wise discretion exercised in assisting the establishment of new industries in South Wales, but it is very questionable whether the same outlook would prevail under a National Scheme embracing all transport.

In 1943, when the Coalition Government was in office, the main-line railway companies were invited by the then Minister of War Transport to express their views

on post-war transport problems. We informed him that, given reasonable conditions under which to operate upon a self-supporting basis, we were unanimously of the opinion that the advantages of continuing the systems under their present ownership and management would far outweigh any likely to be obtained under any form of public ownership, and that in our opinion the main-line railways should continue as four separate entities. This is still the view of your board who feel that the goodwill and tradition which the four main-line railways have already established in the areas which they serve is certainly worth preserving, and it is only by keeping the companies as separate entities that this can be done.

In conclusion, I would remind you that we are being exhorted to use every means to increase production in this country. With this aim in view, surely we must guard against doing anything which would tend to disturb and unsettle our traders, and it is difficult to see how this could be avoided if legislation is introduced involving fundamental changes in our transport system.

That concludes my speech, but I should like to mention that the British Railway Stockholders' Union is desirous of submitting a resolution on nationalisation similar, I understand, to one which was passed at the London Midland & Scottish Railway Company's meeting last Friday. I have intimated that I have no objection to this being done at the conclusion of the formal business of this meeting.

After I have moved the resolution with regard to the adoption of the report and accounts, I shall be able to deal with any questions which you may wish to raise. I beg to move: "That the report of the directors and statement of accounts for the year ended December 31, 1945, be adopted. I will ask Sir Edward Cadogan, the Deputy-Chairman, if he will second that."

Sir Edward Cadogan: I beg to second the resolution.

The Chairman: Now I will try to answer any questions that stockholders may care to put.

Stockholders' Remarks

Mr. Ernest Short, speaking on behalf of the British Railway Stockholders' Union, congratulated the chairman on his statesmanlike breadth of vision for one thing, and because stockholders had had the pleasure of hearing every word without any help from those unhappy things, microphones. He congratulated the board on the dividend, which, although it was not up to the standard of 1929, was the highest dividend since the economic blitz of 1931. The year 1929 was the last of what might be called normal trading in this abnormal world, and whereas by 1937 there had been a recovery by general industry, British railways had enjoyed no such recovery. When the problem of nationalisation was approached there would be something grossly unfair if the standard of compensation under any possible nationalisation Bill was based on conditions in which railways had not recovered from the economic blitz, whereas general industry had. He asked Lord Portal to give his assurance that, in that unhappy event of a nationalisation Bill being produced, he, on behalf of the board, would feel it is his primary duty, and the primary duty of the board, to represent the interests of stockholders, rather than those very properly representing the great body of traders. That was a secondary duty of the board; but in the event of negotiations in regard to nationalisation

the first duty of the board was to the stockholders. An opportunity would be afforded at the end of the meeting to harness the efforts of railway stockholders with those of the board in the struggle against nationalisation. Nothing could be more unfortunate than that stockholders should approach this problem like a million minnows waiting to be swallowed by a whole; if that was the attitude to the bargain that was made in the event of nationalisation it would be far worse than it would be if they put up a fight. Railway stockholders represented a very large body of voting power in this country, and when they had had a lead such as that from Lord Portal, such as they had had from Lord Royden the previous Friday, such as he had no doubt they would get from Colonel Gore Browne on the next day, and from Sir Ronald Matthews on the next Friday, it seemed to him that railway stockholders would be only too anxious to make their voice heard. A million signatures appended to a petition against nationalisation and on behalf of the cause of giving fair terms to railway stockholders would make a very big impression on the House of Commons and on Parliament as a whole.

Commander Burton congratulated the board on the excellent accounts, but was a little disappointed that there had been an increase in the dividend, because he would like to have seen the amount which had gone to the increase in the ordinary dividend set aside as an educational fund for the public as to what the implications of nationalisation were. When the chairman had said he thought the idea of nationalisation was rather regrettable he had not said it quite so categorically as Lord Royden had said, that the board would oppose it by every means in its power. He asked if the chairman would consider with his colleagues whether the board should make a transfer to a publicity fund for the express purpose of putting out up and down the country, by posters, leaflets, and so on, what the proposal for nationalisation would really mean.

Chairman's Reply

The Chairman: I have had two questions addressed to me, one from Mr. Short, which really amounted to several questions in one; and the other from Commander Burton. I can assure Mr. Short that our board quite realise where its duty lies to stockholders. After all, we are here to serve.

In regard to the question raised by Commander Burton—and I agree that he has made some very good points—I think that if he will read my speech tomorrow he will be under no illusions as to the views of the board with regard to nationalisation; but as to what steps are going to be taken on this question, he will surely realise that this would not be the time or the place to discuss them. I may also say to him that we have frequent discussions between the four Chairmen of the main line companies, and I will bear in mind his remarks and suggestions.

I now put to the meeting this resolution which has been proposed by myself and seconded by Sir Edward Cadogan: "That the report of the directors and statement of accounts for the year ended December 31, 1945, be adopted."

The resolution for the adoption of the report and accounts was carried unanimously. The dividend payments were approved, the retiring directors and the Audit Committee were re-elected, and Sir Alan Rae Smith was elected as one of the Company's Auditors in place of the late Rt. Hon. Lord Plender, G.B.E.

Informal Meeting

The Chairman: Mr. Short, will you move your resolution now?

Mr. Short: No; Sir Charles Stuart-Williams will move it.

Sir Charles Stuart-Williams: Mr. Chairman, ladies and gentlemen, I will detain you only for a very short time. The gentleman who spoke last before the Chairman made a very good suggestion that this meeting should definitely put on record its opposition to the whole idea of nationalisation. I propose in the resolution I shall read in a minute to cover that point, as well as another point. The general arguments against nationalisation really need not be entered into by me; the Chairman has got them very fully; and, of course, they were also covered very fully by Lord Royden last week; and I think they leave very little doubt in the mind of the ordinary person that if a case for nationalisation can be made out it has not been made. To attempt an experiment of this kind at this moment in the nation's history is really asking for trouble. I will now read this resolution, and then I will explain the second point which arises out of it:

"That this meeting of stockholders of the Great Western Railway Company fully supports the view expressed in the Chairman's speech concerning the nationalisation of the transport industry, regarding nationalisation as far from being in the best interests of the country. In view of the evidence of the all-round efficiency of the company, this meeting considers that, in the event of nationalisation, the only just compensation should be based upon the capital value of our undertaking, regarded as an essential national asset."

The point of the second part, of course, is familiar to you, that during the inter-war period the railways never had a fair

chance of earning the standard revenue contemplated by the Act of 1921, partly owing to the general trade depression, but more particularly to unregulated road competition. Therefore any basis of compensation which depended on the net maintainable revenue—I think that is the phrase adopted by the Trades Union Congress—would be definitely unfair to all owners of junior or equity stock. The result is that you must have regard to the capital value of the undertaking as a working concern, working as it will be under more favourable conditions, and, when the wastage of war has been made good in every way, well equipped for that duty. It seems to me clear, therefore, that the basis of compensation must have regard to those capital assets, whether as indicated by the balance sheet, that is, cost or book price, or whether by replacement cost, but in any case it must have regard to those assets, and that is the meaning of the second part of the resolution which I have just read. I hope you will support it. I will ask Mr. Short to second it.

Mr. Short: Mr. Chairman, ladies and gentlemen, I should like to second that resolution. I do not think it needs any more words from me. It is intended to harness the efforts of all railway stockholders in their own interests and against what most of us believe is a thoroughly bad piece of industrial legislation.

The resolution was carried unanimously.

Special General Meeting

The Chairman: Ladies and gentlemen, we now resolve ourselves into a special general meeting for the purpose of considering the Parliamentary Bill which has been promoted by this company. Particulars of the purpose of this meeting were included in the special notice which was issued to the proprietors, but I think

you would like to have more detailed information in regard to the matter. As you will have seen from the report, the Bill is necessitated by the proposal of Guest, Keen Baldwins Iron & Steel Co. Ltd., to erect a new hot strip mill contiguous to its Margam Works at Port Talbot under the five-year plan recently submitted to His Majesty's Government by the British Iron & Steel Federation. Discussions have taken place between the company and Guest, Keen Baldwins Iron & Steel Co. Ltd., as to the provision of adequate rail facilities in connection with the scheme, and to enable us to give these it is necessary for this company to obtain Parliamentary powers to acquire land for the purpose of constructing a new railway—approximately 1½ miles in length—which will form a diversion of our existing Ogmore Valley Extension Railway, and the provision of marshalling sidings, etc. The scheme is of considerable magnitude, and the Board is satisfied that it is in our interests to support it. This is the resolution I will propose:

"That the Bill now submitted to the meeting entitled 'A Bill to empower the Great Western Railway Company to construct a railway and to acquire land in the County of Glamorgan; and for other purposes,' be and the same is hereby approved subject to such alterations therein as may be sanctioned by Parliament."

I will ask Sir Edward to second it, and then I will ask if there are any questions.

Sir Edward Cadogan: I beg to second the resolution.

The Chairman: Would anybody like to ask any questions before I put it to the meeting? (There was no response). Then I will put that resolution to the meeting. (The resolution was carried unanimously).

The Chairman: That, ladies and gentlemen, concludes our meeting.

Southern Railway Company

Changes on board—New chief officers—Financial accounts—War damage—Steamship services—Nationalisation—Challenge accepted—Rates and charges—Air transport

The annual general meeting of the Southern Railway Company was held at Wigmore Hall, Wigmore Street, London, W.1, on Thursday, March 7. Colonel Eric Gore Browne, D.S.O., O.B.E., T.D., A.D.C., Chairman of the company, presided.

Brigadier L. F. S. Dawes (Secretary of the company), having read the notice convening the meeting.

The Chairman said: My lords, ladies, and gentlemen; since we last met we have won the war and, we all hope and pray, peace has returned to the earth and goodwill to the occupants of this shattered world. As you all know, the Southern Railway was in the front line throughout the war and, in spite of attacks by bombs, parachute mines, long-range shelling, flying bombs and rockets, your company maintained the services essential to the fighting forces and to the nation throughout six long years of war. Our ships with our own officers and ratings were at Dunkirk and at the Anzio and Normandy beachheads. A war history of your company is now being written, and I hope that you will all read it when it is published later in the year. It is an epic record. And we shall do well to remember that 170 Southern Railway men, while still in our service, lost their lives by enemy action, 126 on the land and 44 on the high seas. Many more were killed off duty in the danger area, through which your line

runs, and over 500 of our staff who became members of His Majesty's Forces lost their lives on active service. You will join with me in offering our deepest sympathy to their families. We shall not forget.

You will see from Item 6 of the report that Lord Radnor, owing to pressure of his many other interests, was obliged to resign his position as Deputy-Chairman last December. He has been of the greatest help to me since I have been Chairman, and I am glad to say that he is remaining on your board. Mr. Henry Brooke has been elected Deputy-Chairman in his place. He is young and energetic, and has an intimate knowledge of the districts which your line serves in the south of London. He has already shown his worth in our deliberations.

Lord Ebbisham and Mr. H. W. Corry have resigned. I thank them both for the unflinching help and sound advice which they have given to your board during their period of office. In their place we have been fortunate to obtain the services of the Rt. Hon. Sir John Anderson, who was Chancellor of the Exchequer in the late Government, and of the Rt. Hon. Henry Willink. Mr. Willink resigned his directorship on being appointed Minister of Health in the last Government. We welcome his return to our counsels.

In regard to administrative changes

(paragraph 8 of the report) I must refer to the retirements of two chief officers. Mr. Alfred Raworth, who was our Chief Electrical Engineer, had served your company since 1918. His name will always be closely associated with the extensions of electrification on your system, and with the application in this connection of the latest developments in electrical engineering. Mr. Francis was appointed to the position of Chief Stores Officer of the London & South Western Railway in 1920. When the Southern Railway was formed we were fortunate in being able to retain his services as Stores Superintendent, and in the years of war to have the advantage of his long experience in dealing with many awkward supply problems. We wish both these officers a long and happy retirement, and we extend a hearty welcome to their successors. Mr. Cock, our new Chief Electrical Engineer, comes to us from the Great Indian Peninsular Railway in India, and he has those special technical qualifications which are required on your system. Mr. MacLeod, our new Stores Superintendent, has been promoted from the position of Assistant Stores Superintendent after a career which has embraced several other departments of your company, and he is thoroughly trained for his new post.

I will now turn to the accounts. They have again been prepared in the abbreviated form authorised by the Government during control. I assume that, as usual, you will wish the accounts to be taken as read?

Account No. 4 shows an expenditure on capital account during the year of £15,763. This sum is chiefly attributable to expendi-

ture on crane facilities at Southampton Docks.

Account No. 8 "revenue receipts and expenditure" shows that the net revenue for the year is £6,989,301, a decrease of £10,751 compared with 1944. The net revenue includes the annual sum of £6,607,639 due from the Government under the Railway Control Agreement, together with the sum of £300,000 received from the Government, representing the interest on £7½ millions debenture stock issued in 1939. It also comprises items excluded from the Government control account, mainly dividends from our investments in road transport undertakings, which are practically the same as for 1944. There are also some adjustments of items relating to previous years' accounts. As before, in bringing these sums to account we have made certain provisions towards meeting those war contingencies which fall to be borne from our own resources. The net result is the decrease of £10,751 which I have previously mentioned.

After meeting the interest on debenture stocks, dividends on guaranteed and preference stocks and the full 5 per cent. on the preferred ordinary stock, the balance available for dividend on the deferred ordinary stock is £697,600 which will permit us to pay a dividend of 2 per cent. This is the same as paid for the year 1944. A dividend of 2 per cent. on our deferred stock will absorb slightly more than the net revenue earned in the year. The balance carried forward is £6,795, a decrease of just over £14,000 compared with last year.

War Damage

I would here remind you of the question of war damage to which I referred two years ago. Since then negotiations have been taking place between the Government and the railway group of undertakings. I am hopeful that an early settlement will be effected. The total cost of war damage contributions to be borne by the railway group as a whole is not expected to exceed 50 per cent. of the total claim by the group for damage sustained—we hope it will be less than 50 per cent. It is impossible at present to form a reliable estimate of the amount of this company's liability. As in previous years, a proportion of the assumed liability has been taken into consideration in preparing the accounts for 1945.

Our general reserve and contingencies funds have figured in the balance sheet for several years, and in the opinion of your board the present is not the time to draw on our reserves in view of the many unknown factors which may affect our future. Turning to the general balance sheet, No. 19, you will notice that the item "miscellaneous accounts" on the liabilities side stands at over £20 millions, mainly representing the unspent repairs proportion of arrears of maintenance charged to the control account. On the assets side, payments to the trust fund in respect of arrears of maintenance have now reached a total of over £21 millions.

Improvement in Facilities

You will realise that our first object now must be to restore normal working conditions. The attainment of this object is affected by many factors, and I regret to say cannot be quickly achieved. Despite, however, the abnormal load which we are still carrying under difficult conditions, I am glad to record that there has already been a definite improvement in our passenger timetable, and that refreshment car facilities have been restored on some of our long-distance trains. We

have also been able to complete during the past year a substantial renewal of track, which will, I hope, result in better time-keeping. We have scheduled for 1946 a number of bridge renewals, and we are taking in hand the restoration of some of our war damaged stations, including Portsmouth Harbour. We have already turned out of our Brighton Works 28 Pacific locomotives of the "Merchant Navy" and "West Country" classes, the latter being a special design to handle traffic on the West of England line; 108 new passenger coaches were completed during 1945. These include some wider and larger-capacity suburban vehicles, the supply of which will, we hope, in due course ease to some extent our peak hour problems. And we have exhibited for public criticism the first of our new design of main-line passenger coaches. The interest shown was most encouraging. And we have adopted a number of the suggestions made by the public who saw the prototype. At Southampton Docks we have started on a programme to replace the older types of crane, and in due course we shall proceed with the rebuilding and modernisation of some of our sheds and warehouses in that port.

Steamship Services

I told you last year about the resumption of our Newhaven-Dieppe service. We have now re-introduced steamer services, both passenger and cargo, to the Channel Islands, a service for cargo between Folkestone and Calais, and a limited service for cargo by train ferry from Dover. The Dover-Calais service will, we hope, be resumed in April. Our friends, the Belgian Marine Administration, have once more begun a service to Ostend, using Folkestone temporarily as the English port. We lost 12 out of our pre-war fleet of 42 vessels during the war, and in conformity with our steamer renewal programme, of which I told you last year, we have already ordered from our builders one cross-Channel passenger steamer, one cross-Channel cargo vessel and one passenger and motor-car ferry for Isle of Wight traffic. All these vessels are larger than those built for similar purposes in the past, and they will incorporate modern practice in respect of accommodation and machinery.

From the picture which I have tried to paint to you I hope that you will see the dawning of a new era, and will agree that we are doing our utmost to restore your undertaking to the standard to which the travelling public and you were accustomed in the piping days of peace. You must, however, remember that progress in the main depends on the release of skilled railway workers and of materials which are still in short supply. By this time next year I hope I shall be able to report great progress and considerable achievement.

Nationalisation

And now I come to a matter which will be uppermost in all your minds today, as it is in mine and in those of all my colleagues. I refer to the decision of His Majesty's Government to nationalise not only the railways, but also the canals and long-distance road haulage services. The Lord President of the Council, speaking on November 19 last in the House of Commons, made the following announcement, which has since been confirmed to the Chairmen of the main-line companies by the Minister of War Transport: "In regard to Inland Transport, powers will be taken to bring under national owner-

ship, railways, canals and long-distance road haulage services."

So this is the momentous issue, which not only you as owners of this great undertaking and we who are your trustees, but also the British public, have to face in the coming months. My colleagues and I find ourselves wondering whether those who voted for the present Government understand what nationalisation of the major units of surface transport in this country really means. Do they think that the public will have a better and a cheaper service? Do they think that the wage earning and the salaried staffs of the main-line railway companies will be better off?

Before trying to deal with these fundamental questions in some detail, may I make some preliminary observations? The Lord President of the Council speaking in the City of Toronto on January 10 last said: "It is the public interest that counts and the real field for argument is how best can industry be organised or managed with a view to achieving economic public advantage. It is up to the nationalists to prove their case that there will be public advantage by nationalisation. It is no less up to the anti-nationalisers to prove their case that the public interest can best be served by private ownership."

Challenge Accepted

On my own behalf and on behalf of all my colleagues, and I venture to think on behalf of all of you, the shareholders, I challenge the nationalists to prove their case. I accept the challenge to prove that public interest can best be served by private ownership of the Southern Railway. It is a principle of English justice that a man is held to be innocent until he is proved to be guilty; and is it unfair to claim the same privilege for a public utility company with our record?

No one, I think, can deny that the Southern Railway, and indeed all the railways, made a major contribution to victory. In my speech to you last year I told you something of our achievements. Today we are still under Government control, and nobody realises more than we do that the service which we are giving to the public under present conditions is far from what we would have it be. And why cannot we give a better service today? It is the result of total war. The volume of freight traffic which we are now handling is 30 per cent. more than our pre-war average, and while the number of passengers booked at the London termini for the month of November, 1945, shows a 37 per cent. increase over the number booked during the same month in 1938, long-distance passenger traffic is up by no less than 480 per cent. compared with before the war. At the present time we are running about 570 Government specials each week, as compared with 381 before D-Day and 538 after D-Day. We are very short of trained staff; of those who went to fight for us only 25 per cent. have yet returned. The majority of the engines which we now have require re-conditioning owing to overwork. This has resulted in an increase of over 100 per cent. in failures as compared with before the war. We have to use poor quality coal which causes shortage of steam, and this seriously affects our time-keeping. We have many speed restrictions due to bomb damage. You know how much we suffered from enemy action, and it will take time to effect permanent repairs to our high standard of maintenance. And to meet all these difficulties our total strength in steam stock is down by about

15.2 per cent. and our electric stock down by 3.5 per cent. And why? Because our workshops have for all these years of war devoted their major effort to war production.

I think that the travelling public, in the many discomforts which they now have to face, sometimes forget what a very fine service they enjoyed, second to none in the world, before the disaster of total war fell upon us. All these difficulties, which are none of our making, have to be faced just at a time when our political future is in the melting pot. But is it altogether fair for Ministers of the Crown, with full knowledge of these facts, to make such statements as have recently been made not only by the Lord President of the Council, but by the Financial Secretary to the Treasury? Do they really believe the one, whose train was late that day, that when railways are nationalised then will be the time for punctual running, and the other, that ladies will be able to sit down in railway carriages without making their clothes dirty when the railways are owned by the State? I deprecate comments of this kind to a public which in the nature of things cannot be fully acquainted with the facts.

Incidentally, who is at the present time responsible for the running of trains, late or otherwise? The Minister of War Transport on January 28 last stated in regard to late running that the control of trains was entirely in the hands of the railway companies, while a predecessor of his, Lord Brabazon, in the Coalition Government, said on November 13, 1940, that he was in complete control of railways and that this even applied to late running of trains. The fact is that your undertaking and the trains on your system are now, as they were in 1940, under the complete control of the Minister of War Transport.

And now I come back to my questions, and before trying to answer them may I make it absolutely clear:—

(i) That your board accepts the challenge to prove the case for private ownership of your company before any impartial committee or commission which His Majesty's Government may think well to appoint and charge with the duty to examine the efficiency of the Southern Railway; and

(ii) That your board challenges His Majesty's Government to prove that by nationalisation of surface transport, a better or cheaper service will be given to the public, or that the salaried and wages staffs will be better off.

Will the public get a better or cheaper service? I do not think they will. Let me remind you of a few of the successful enterprises which have been carried out by your company in recent years.

The electrification which has given many thousands who work in London an opportunity of living outside and in less crowded conditions than otherwise could have been possible; the continuous improvement to our stations, which only the war interrupted; the great development of our docks, especially Southampton, at which your company receives and services the biggest liners in the world and without which the planning and operation of D-Day would have presented far more serious problems; the constant process of modernisation of signalling apparatus by substituting colour-light equipment to provide still greater safety to railways which are the safest in the world, and many smaller but no less important improvements and modifications such as the most comprehensive and popular system of

cheap tickets, which the Government, during the war, compelled us to withdraw, and excursions, snack-bar coaches, camping coaches, containers, etc., etc. Would this all have taken place under nationalisation, and can this progress be maintained if your undertaking is owned by the State? Can an impersonal machine like a Government department or a national railways board stimulate the necessary enterprise, forethought and keenness? I wonder.

Rates and Charges

And now as to cost of travel and carriage of goods. Rates and charges have been increased during the war by only 16½ per cent. and workmen's and season tickets by only 10 per cent., but the cost of coal is up by about 92 per cent., labour costs by about 75 per cent. and the cost of materials which we use by about 83 per cent. Whether the State owns the railways or they continue under free enterprise, a rise in rates and charges is, I think, inevitable, but the extent of the rise will depend not only on the volume of traffic but, in no small degree, upon the efficiency with which the railways are managed. Will a Government department or a national corporation, able to draw upon the Exchequer when necessary, be equally enthusiastic in making every effort to keep down costs and charges (which result from costs) as a privately-owned concern, which depends upon economy, goodwill, efficiency and progress for its very existence? I do not envy the task of the Chancellor of the Exchequer, in the event of State ownership, who is faced with annual deficits on that part of his budget which relates to the State's railway undertakings.

Will the wages and salaried staff be better off? I believe many railwaymen think that nationalisation will bring them better conditions. They are attracted by rosy visions of shorter hours, more pay, Civil Servants' pensions and longer holidays. Will the Government be able to give shorter hours when we find it difficult to do so? These benefits would mean an extra drain on the taxpayer or increasing rates and fares at the expense of the public. How many Civil Servants actually are pensioned? It is only the "established" part of the Civil Service—far less than half—who receive a pension. The manual workers, storemen, artificers, craftsmen, and other non-supervisory staff are as a rule not pensioned at all.

Freedom from strikes has been largely due in the past to the sound machinery evolved over many years in agreements made with the railway trades unions. Will labour relations be improved by nationalisation? What will be the position of the railway trades unions when railway employees all become servants of the State?

Will the country be better served? All parties in the State admit that the railways did a grand job in the war. The Southern Railway by reason of its geographical position and, I am proud to know, by reason of the spirit which pervades all ranks of your company, made a major contribution to our recent victory. It is true that the railways have been under the orders of the Government during the war, but the efforts which they were able to make were not the result of Government control. As I told you last year, in the days gone by we ploughed back annually into your undertaking considerable sums of money, which might have otherwise been distributed to you. Thus your system was kept in the highest possible state of efficiency, and there is no

doubt that we could not have carried out our task during the war successfully unless you the owners had made this sacrifice in the public interest. Remember, too, that those who did the work were all trained and brought up by private enterprise. To sum up the answers to my three questions, in my view it is *non proven* that conditions for any of the parties interested will be improved by State ownership.

I know that it is thought by some people in this country that a public corporation is the best solution of the problems of surface transport, and the London Passenger Transport Board is quoted as a standing example of the success of such a corporation. Has this experiment been such a great success? I venture to remind you that the L.P.T.B. is neither State controlled nor State owned. It is privately owned, but the shareholders have no control over their property. As has been rightly said by an eminent member of the Socialist Party, who is a member of the London Passenger Transport Board, "the separation of management from ownership as exemplified by the London Transport scheme may become in reality a conflict between public interest and private profit, resulting in injustice to owners, and disadvantage to the public." The holders of the "C" stock in that organisation have never received the 5½ per cent. which is their statutory right, and are in the position to appoint a receiver, while the statutory redemption fund, which was to be created to redeem the capital, other than "C" stock, out of income within 80 years, has never been set up. Surely a public corporation is not the answer.

Now you may say that so far all my criticisms of His Majesty's Government's plans have been destructive, and you may fairly ask, "what is the plan of the Southern Railway in order to meet the difficulties which lie ahead, and which are well known to all?" My answer to this question—and it is a fair question—can be briefly stated. It is this: all we ask is to be allowed to deal on fair terms and on our own initiative with the many problems with which we, in company with the other railways, are most surely faced.

Major Problem

The major problem is, of course, the competition with the long-distance road hauliers. You will have read in the papers the fight which they are putting up against the Government proposals. Broadly speaking, their views coincide with ours. We applaud their courage and wish them all success. Our position in relation to the long-distance road hauliers is this:—

You will all remember that in 1938 the four railways focused the attention of the public on the road-rail problem through their now famous "square deal" campaign. I will not weary you with the details. It is sufficient to say that by May of 1939 we had convinced the Government of the day and the Transport Advisory Council, to which the matter was referred, that our case for the revision of existing legislation governing the carriage of goods by rail and by road was unanswerable, and the then Minister of Transport gave an undertaking in the House of Commons that new legislation on the lines which we had recommended would be brought in in the autumn of that year. Before this could be done the war had broken out and the legislation remains today as it was then.

However, we did not allow matters to stand still, and the Road-Rail Conference which had been set up in 1939 jointly with

the road transport long-distance hauliers, has been working out principles and indeed details of a co-ordinating scheme which would have two results: (i) it would retain the unfettered right of the trader to send his goods by rail or road as he thought fit, for that is a right that we have never challenged; (ii) by means of revised arrangements applicable to both road and rail, it would remove the anomalies as between the two forms of transport, and so provide an approach to equality of operation, without which no progress can be made.

Under such a system, long-distance hauliers would be licensed and would undertake certain responsibilities towards the public which they have hitherto not shouldered, but which all the responsible elements in the road transport industry recognise they must shoulder now that the industry is firmly established and forms part of the country's transport system. Again I will not weary you with details, but I would say in passing that such ideas as we have been working out with the road transport industry would not necessarily mean that road and rail rates would be identical. In some cases road rates might be higher and *vice versa*, according to the type of service rendered. What it does mean, however, is that a road haulier once licensed would have to shoulder his responsibilities, and in order to ensure that such a position was maintained throughout the road transport industry, legislation would be essential.

The negotiations between the road and rail to which I have referred have gone a long way, and the Minister of War Transport has been kept fully advised from time to time of the progress made. I am personally confident from what I know of the long and complicated negotiations, which are still being carried on, that with the goodwill which is now so evident between the two branches of the transport industry, we shall eventually arrive at a solution which will make for a stable transport industry, and allow of the best possible service being given to the public, without recourse to the deadening hand of State control.

Air Transport

Another problem which we of the Southern Railway will have to face is competition with the air. It is indeed bitter to reflect that when I had the privilege to address you last year I told you of the plans which we were evolving in close co-operation with the Government to play a major part in European Air Services. Owing to the change of Government, these plans have all been brought to nought. While we were prepared in our discussions with the late Government to run the air services to and from Europe without subsidy, unless we had to compete with subsidy, we are now faced with competition from an Air Service to the continent, which will be subsidised at any rate at the start. But we are not afraid. With our existing channel ferry service, our new ships which are now on the stocks, and other projects which we have in mind, we shall make every effort to stand up to this competition from a State enterprise.

Nevertheless, is it not improvident for the State which, you may think, has many more important obligations to its citizens today, to risk public money in the adventure of air transport, and to take this action at a time when the railways and shipping companies with all their experience, not only of surface but of air transport, were ready and willing to put

development of air services, not only in this island, but to and from the Continent of Europe, in the forefront of their programme?

Other Plans

And have we got any other plans? Yes, we have. They include more electrification, more new ships for our cross-Channel and Isle of Wight services, rehabilitation of our docks, and re-design and reconstruction of many of our stations. In fact, every possible improvement as soon as we can make it for speedier and more comfortable travel, quicker collection and distribution of goods and closer working with road hauliers. You may rest assured that we have not been idle in regard to forward planning, in spite of the very heavy burden which our officers have carried in the grim years of war.

Now it has been alleged by some of our critics that the railway companies have already been forced to borrow money from His Majesty's Government in order to carry out essential works which they were not in a position to finance themselves. In the case of your company the position is that your board did, in fact, at the suggestion of the Government, borrow from it in 1935, the money being used to extend our electrification schemes and for various other useful capital works which were at that time under consideration for early execution. This money was borrowed, and the work was done then, in order to help the Government in the pressing problem of unemployment with which the country was at that time faced. Your company, although it does not stand to repay this sum until 1952, is in a position to repay the whole of this debt today, and will gladly do so if His Majesty's Government so desires.

It is not the capital position about which your board is anxious, but a sword of Damocles hanging over our heads is not an incentive to enterprise. My friend, Lord Woolton, recently put our case most admirably. The railway boards have made, said he, long-term plans for capital expenditure to improve their services, plans which will give employment to many trades, but have they the right to spend shareholders' money in placing orders which cannot fructify during their term of office? They feel naturally chary in committing the nation to their plans when the future is so uncertain. If they could only be sure of the future they could proceed with confidence, thereby stimulating industry and doing their bit towards pulling the country out of its present financial difficulties at a time when the need is so great. And, is it in the public interest or yours that this great public utility company the Southern Railway should be sacrificed at the altar of a political theory, the practical results of which are to say the least of it obscure, and may be disastrous? And once eggs are scrambled, I defy any cook to unscramble them.

Now you will no doubt have studied the Trade Union Congress report which was approved at the Blackpool Congress last year, and which dealt with the public operation of transport. It would appear that in their view the proper basis for compensation for the owners of undertakings required for public enterprise should be based on a "reasonable net maintainable revenue." By this they mean that the purchase price of the acquired undertaking is related directly to its earning power, and they go on to say that the application of the "reasonable net maintainable revenue" method precludes any computation based on the high profits of wartime operations, and precludes

also special consideration to that part of past earnings which has been due to monopoly, or some monopoly activities, or to any direct or indirect subsidy previously granted by the State. The vital matter which emerges here is on what years will the computation be based? And personally, and I am sure that you will agree with me, I should regard it as grossly unfair if no credit is to be given to the railway stockholders for the profits which, as I have said, they ploughed back in times of peace into their undertakings, and without which the railways of this country would never have been able to carry the burdens of the last six years. Your railway is certainly not a monopoly. No doubt in due course we shall receive from His Majesty's Government the details of its scheme, but it is interesting to note that since its accession to office they are in process of acquiring two undertakings, which were formerly in private ownership. I refer to the Bank of England and to the coal mines.

In the case of the Bank of England, the plan was to exchange Bank of England stock for Government stock having in mind the current market value of Bank of England stock, but assets in the form of reserves are not being taken into account. In the case of the coal mines the net maintainable revenue is to be ascertained on the basis of the net annual revenue which the assets as a whole might reasonably be expected to earn in the future if they were not transferred to public ownership, and no principle has been laid down for defining the number of years' purchase. I come to this conclusion, that neither the Government's plan for the acquisition of the Bank of England, nor its plan for the acquisition of the coal mines of this country, can be accepted if an attempt is made to apply similar principles to the acquisition of railway stock. After all we must remember that we have a yardstick which the Act of 1921 applied to railway undertakings, namely, the standard revenue, and it is interesting to recall that this company was within £543,746 of this revenue (of approximately £7 million) in 1937, and given peace in Europe, I am sanguine enough to think that we should, if total war had not intervened, have attained our standard revenue long ere this, provided always that the road-rail problem had been solved, as it would have been by the necessary legislation. During the war, of course, the aggregate net revenue of the four companies' Government control account was vastly in excess of their total standard revenue.

Where nationalisation of surface transport has already been tried out, has it or has it not been a success? Here are the facts. About fifty per cent. of the railways of the world are, I believe, nationalised, and I have no hesitation in saying that on the whole it is those which remain privately owned and managed which are the most efficient and which give the best service. The railways of France, Germany, and other continental nations, many Indian railways and others in the Commonwealth have been nationalised and, quite apart from the financial aspect, I do not think anyone can deny that the transition from private to public ownership in almost every case has caused loss of efficiency and what is so very important, loss of the personal touch. My predecessor in this chair left us a great tradition in this regard, and my colleagues and I have done our utmost to maintain it. Only 29 per cent. of State-owned railways are self-supporting; in a

number of cases the working expenditure exceeds the gross receipts with no allowances at all for interest on capital.

In the United States, as you know, during the 1914-18 war, the railways were placed under Government control with the most disastrous results, and the United States Government had to subsidise the railways at the rate of about 2 million dollars a day, but in this war free enterprise was left to run the American railways, and what has been the result? They have during the war years not only made satisfactory profits, but have contributed to the national exchequer in that country at the rate of about 4 million dollars a day. Anyone who has visited the United States during the war just ended will tell you how far the railways have contributed, by their efficiency, to keeping up the morale of the citizens of that great country, and to its war effort in general.

And now in conclusion, you will, I hope, leave this room in no doubt as to the views which your board holds in regard to the plans of His Majesty's Government to nationalise the railways. I would not have you think that in my view the Southern Railway has no faults. Of course it has. But has the General Post Office no faults? Has the British Broadcasting Corporation no faults? Of course they have. But, however that may be, I feel that our first duty is to you, and that in the event of a Bill being presented to Parliament which seeks to enable His Majesty's Government to give the force of law to their expressed intentions, it will be our clear duty to use our best endeavours to ensure that the compensation which you receive is reasonable, fair and adequate. But—and I speak for all my colleagues—surely we have another duty too? As citizens of this great country, so far as in us lies, to oppose what we regard as a retrograde step in the development of a great public service, and not to relax our efforts unless and until His Majesty's Government plan is produced and we are satisfied that its provisions are in the public interest as well as in yours.

I beg to move: "That the report of the directors and statement of accounts for the year 1945 be, and the same are, hereby received and adopted." I will ask the Deputy-Chairman to second that resolution and, after that has been done, if any stockholder would like to ask questions, I would ask them very kindly to give their names and to keep their questions as short as possible.

Mr. Henry Brooke: Mr. Chairman, my lords, ladies, and gentlemen, I have great pleasure in seconding that resolution.

Stockholders' Remarks

Mr. Alfred Instone expressed warm appreciation of the impressive and illuminating speech of the Chairman. He confessed to a tinge of disappointment when he had learned that the board had not seen fit to increase the dividend on the deferred stock. The stockholders were fortunate in having outstanding figures of life-long experience in the railway world; he included not only members of the board but men like the General Manager, Sir Eustace Missenden, and the staff from top to bottom, who were second to none. It was remarkable that the company had been able to continue its record of efficiency and initiative. He would like to know whether any information could be given as to what reward the company would receive for the use of its property by the Government during the war. It was common knowledge that whenever there had been nationalisation of the railways there had been in-

efficiency and bureaucracy. He urged the board to fight for freedom.

Mr. Ernest Short, speaking on behalf of the British Railways Stockholders Union, said his own feeling on the problem of the grotesque position of equity stocks on the market was that they were grossly undervalued, and that in itself was something that every stockholder should take to heart. He believed it is their duty to fight now to ensure that if any nationalisation was introduced it was done with the full knowledge that the interests of those who invested money in the railway industry were regarded.

Mr. Rabenshaw said that he appreciated that the accounts showed that no further money had been earned, but the Bank of England stock had been bought out on the basis of the dividend which it had received for many years past. It seemed to him that the up-to-date policy of the board should be to declare as large a dividend as possible. The company was paying large sums on debentures and preference shares of 4 and 5 per cent. Where the stocks were not dated could they be paid off at proper notice because, with cheap money, the company ought not to be paying 4 and 5 per cent. He also asked if improvement could be made in the services to Bexhill, Hastings, and St. Leonards.

Miss Matthews suggested that as a suitable war memorial for Southern Railwaymen some "Darby and Joan" cottages should be built to be let to the aged parents of those who had given their lives.

Mr. Pleass asked whether the company was likely to reintroduce the old system of the return journey for a single fare. Why did the Southern Railway Company make a charge of 3d. for a cup of hot water instead of 2d. for a decent cup of tea on Waterloo Station, and why did it not keep the station tidy?

Mr. Cavenagh referred to the Belgian State Railways and said they had been so inefficient that it had been necessary to reform a semi-private company shortly before the war.

Mr. Potter referred to the Superannuation Fund and to correspondence he had had with the secretary of the Fund.

Mr. William Friend said that at present stockholders could ask questions and get answers. What would be the position under nationalisation? When he went to buy a railway ticket, would he have to fill in a form or two, first?

Chairman's Reply

Ladies and gentlemen: If there are no more questions, may I try to answer those that have been asked? First of all, Mr. Instone, thank you very much for your kindly appreciation of the board. You expressed some disappointment, as did other shareholders, about the non-increase of the dividend. I want to assure you that my colleagues and myself gave very full and anxious consideration to the dividend which we should declare this year, and we share to the full the disappointment of the holders of the ordinary stock. The reasons which weighed with us were these. First, we could not foresee what the political implications would be, and in political life there is sometimes a "slip 'twixt the cup and the lip." Then there are these two imponderables, in the future. Our liability in respect to war damage has not yet been ascertained. In addition, the net revenue accounts of the control period are still under investigation, and a final settlement with the Government has not yet been reached. Those were three factors which weighed with us; but I want to assure you that we did think very hard and had a very full debate about it, and, on the whole, I personally was completely satisfied that,

having regard to all the facts, our decision was a right one. Then Mr. Instone was kind enough to make some appreciative remarks with regard to the officers of the company. I am sure my friends will associate themselves entirely with everything that you said. I did not actually mention them in my speech, but I thought you were well aware of the service they had rendered during six years of war, and the tremendous difficulties under which they are working today.

Then Mr. Instone asked about the question of wear and tear which is tremendously important. As I told you last year, we have had an interview with the Minister of War Transport on that point, and the Minister intimated that he will be prepared to make an allowance, but that the amount cannot be determined until the end of control. Since I spoke to you last, statements have been prepared by the railway companies and laid before the Minister, and they cover the period up to the end of 1944; those for 1945 are in the course of preparation. I think I may say that, in principle the claim has been accepted, and the Minister had said that until the end of control he is not prepared to agree to the actual amount.

Mr. Short spoke of the position of railway stock on the Stock Exchange. I am a banker by trade, and the ways of the Stock Exchange have always been to me entirely unintelligible. The reaction of prices to statements made by public men, in my ignorance, always seem to go exactly the reverse of what I think they will do; that is why I never speculate on the Stock Exchange. Of course, over-lying the fall in railway stocks is the real trouble. Until we have cleared this fence of nationalisation, matters are not likely to improve. Mr. Short also spoke about the support of the stockholders of the British Railway Stockholders' Union. He is, later, going to propose a resolution, and we will warmly welcome all the help that you can give us.

Mr. Rabenshaw also spoke about the dividend. I would like to remind him that the dividend of 2 per cent. on the deferred ordinary stock was paid for 1943/44 and will be paid this year; it has only been equalled twice in history since our amalgamation. The average dividend we have paid for the last 20 years is 1.15 per cent., which, having regard to the past, is not too bad. Then he talked about capital value depending upon dividends. As I said in my speech, of course it does, but, on the other hand, I rather think that the compensation will not be related to dividends. I do not honestly think that if we had put up our dividends to 4 per cent. it would have affected the Government a little bit. Then he talked about cheap money. I have thought a very great deal about it. I only wish that we could pay off some of these debentures now, but for that purpose we should have to make an application to Parliament, and unless we went to Parliament we could not possibly alter the rights of our debenture holders, but it would be such a breach of confidence to those who hold them that, much as I would like to do it, it is quite impossible; it would create a most unfortunate precedent if we were to do it.

Miss Matthews suggested a war memorial. I entirely agree with you, that we do not want elaborate tablets or things of that kind, and we will bear in mind, when the time comes, making provision for those elderly people. Will you leave it with us, Miss Matthews?

Miss Matthews: Could you also ask the railway workers whether it appeals to them?

The Chairman: I do not think we need

ask anybody's advice. We will make a decision, bearing in mind what you think is a good thing to do. May we leave it like that?

Miss Matthews: Yes.

The Chairman: Then Mr. Pleass was angry about the cost of a cup of tea. I do not know about that. Is it at Waterloo that your trouble is about the cup of tea?

Mr. Pleass: Yes.

The Chairman: I will go and have a cup of tea there this afternoon.

Then Mr. Potter spoke about the Superannuation Fund. As a matter of fact, I have had some correspondence with Mr. Potter, and if you will come and see me at an early date I will do my best to satisfy you.

I think I have now answered all your questions, ladies and gentlemen. May I move the resolution:—"That the report of the directors and statement of accounts for the year 1945 be, and the same are, hereby received and adopted"?

(On being put to the meeting the resolution was carried unanimously).

The resolution for the payment of dividends was carried, the retiring directors

were re-elected, and the Auditor re-appointed.

Mr. Instone: May I ask you ladies and gentlemen to join me in expressing, by acclamation, our thanks to the Chairman? He has promised to answer my question, and I am sure you are all satisfied with the way he has dealt with you.

The Chairman: Thank you very much indeed.

Informal Meeting

Mr. Short: I do not propose to speak again, Mr. Chairman. You know the grounds upon which I found this resolution. It has been passed by two railway meetings already, and I am quite sure it will be passed by the L.N.E.R. tomorrow. It reads thus:—

"That this meeting of stockholders of the Southern Railway Company fully supports the view expressed in the Chairman's speech regarding the nationalisation of the transport industry, regarding nationalisation as far from being in the best interests of the country. In view of the all-round efficiency of the company, this meeting considers that, in the event of nationalisation, the only just basis of compensation

should be the capital value of our undertaking, regarded as an essential national asset."

I would just like to say this. Our purpose in that resolution is to ally the great body of shareholders with any efforts the board may make on our behalf. It could be done in many ways. If a million stockholders signed a petition to the King and Parliament that would be one way. Another method would be continually to speak in public and private about the question of nationalisation and the injustices hitherto done to railway stockholders. I think that is quite enough to commend this resolution to you, and perhaps Mr. Instone would second it?

Mr. Instone: To my mind it is not strong enough by half, but I have pleasure in seconding it.

(On being put to the meeting the resolution was carried unanimously).

The Chairman: Ladies and gentlemen, I thank you for your help in that respect. I will consult my colleagues on the other railways, but I would like to finish up on this note, to thank you very much for coming and to ask for the help of everyone in the battle against nationalisation.

London & North Eastern Railway Company

Board changes—Financial results—Traffic figures—War effort of the company—Problems of transition—Effects of wartime working—Rolling stock programme—Advances in wage rates—Steamship services—Road and rail co-ordination—Public relations—Nationalisation

The annual general meeting of the London & North Eastern Railway Company was held at Grosvenor House, Park Lane, London, W., on Friday, March 8. Sir Ronald W. Matthews, Chairman of the company, presided.

The Secretary (Mr. W. H. Johnson), having read the notice convening the meeting.

The Chairman said: My lords, ladies, and gentlemen: It will have been a matter of great regret to all our stockholders to have learned of the passing of my predecessor in office, Mr. William Whitelaw, at his Scottish home on January 19. He was a great leader and an outstanding figure in the railway world, and none who had the privilege of knowing him will ever forget his great qualities of heart and mind.

It is with sincere regret also that I have to report to you the great loss sustained by the company by the death on April 17 last of Sir Gerald Talbot, who was appointed to the board in October, 1934, and who rendered admirable service, especially as chairman of the various superannuation funds of the old Great Eastern system. His place on the board has been filled by Lord Burghley, who resigned his directorship in 1943 on his appointment as Governor and Commander-in-Chief of Bermuda, and whom we are delighted to welcome back on the expiration of his term of office. Mr. Oliver Bury resigned his seat on the board in November, 1945. As General Manager of the Great Northern Railway Company from 1902 to 1912, as a director of that company from 1912 to 1922, and as a director of your company from its incorporation, he rendered great service and, in his capacity as Chairman of the Works Committee of the L.N.E.R., his engineering skill and wide railway experience have been of inestimable value. In his place your directors have appointed the Right Hon. Ralph Assheton, one of the Members of Parliament for the City of London, where this company has important interests. Mr.

Assheton's extensive commercial and financial experience will be of great assistance to the company.

As you will have seen from the annual report, we have lost, by retirement, the services, of Mr. George Mills, Divisional General Manager, Southern Area, and Mr. A. P. Ross, Chief Stores Superintendent. Both these officers rendered devoted service of the highest order throughout their railway career.

The year under review must ever rank as one of the most notable in the history of the world. It saw the crushing defeats of Germany and Japan, and the elimination, one hopes for ever, of a creed of ruthless aggression unparalleled even in the blackest pages of the past. It is hard even today to realise that we are not liable to sudden extinction as we sit in this room and that if our proceedings are unduly protracted we shall not have to grope our way home in the blackout.

Today then I can lay before you without unpleasant repercussions from the censor a more detailed account of the achievements of the men and women of the London & North Eastern Railway during the years of war, in order that the people of Great Britain, who have not been negatively in their appreciation of the contribution of the railways, may realise to the full the depth of their indebtedness to the staffs who for six long years kept the wheels turning and the supplies moving, and to the stockholders whose heavy sacrifices in bygone years ensured the efficiency of the machine. I shall, I know, be expressing the feelings of all the proprietors in extending to Sir Charles Newton, our Chief General Manager, and to the company's staff, men and women, of all grades, our heartfelt appreciation of the services they have rendered to this country and its Allies during the past six strenuous years.

Accounts

Let me, however, in the first place deal with the accounts: the net revenue for the year 1945 was £11,027,813, which is an

increase of £274,534, or 2.55 per cent. as compared with 1944. This amount is made up of £10,136,355, which is the company's share of the annual payment from the Government in accordance with the Railway Control Agreement, a sum of £609,896 from items excluded from the rental payment under that agreement consisting in the main of interest and dividends from our investments in bus and road haulage companies, and an amount of £281,562 arising from reserves no longer required. To the net revenue of £11,027,813 must be added a profit of £30,258 on the realisation of investments and the balance of £81,479 brought forward from 1944, making a total sum available for appropriation of £11,139,550.

After providing for all fixed charges and payment in full of dividends on the guaranteed stocks, the directors recommend the payment of final dividends of 2 per cent. on the 4 per cent. first preference stock and 2½ per cent. on the 5 per cent. redeemable preference stock (1955). This leaves a balance of £2,374,184, which enables a final dividend of 2½ per cent. to be paid on the 4 per cent. second preference stock, making, with the interim dividend of 1 per cent. already paid, 3½ per cent. for the year, and the sum of £59,208 to be carried forward.

Traffic Figures

I regret that once more I cannot supply in pre-war detail all the figures relating to the company's activities during the year, largely because the operation of the Railway Control Agreement with its fixed rental provisions carries with it the suspension of the Railway Clearing House allocation of gross revenue among the various undertakings. However, the statistics I can give you will indicate the continuing high level of traffic during 1945.

Comparing that year with the 12 months immediately preceding the war the number of loaded wagon-miles run on the L.N.E.R. line was 1,264 millions, an increase of 21 per cent. Empty wagon miles were 371 millions, a decrease of 109 millions, the result largely of the savings made possible by the use of requisitioned privately-owned wagons in common with railway-owned stock and the centralised control of the combined fleets. Net ton-miles, at 7,410 millions showed, compared with pre-war, an increase of 1,684 millions—905 millions

in respect of general merchandise, 652 millions in respect of minerals and 127 millions in respect of coal. Freight engine mileage run was 93 millions, an increase of 12 per cent. The mileage run by passenger trains (including Government special trains) amounted to 56 million, 24 per cent. less than before the war, whilst passenger miles are roughly estimated at some 70 per cent. more.

The freight figures represent substantial traffic increases compared with before the war, and although they fall below the level of 1944 they do not indicate such a reduction as might have been expected with the close of the war. The reason for the decrease is readily comprehensible; a fall in traffic directly concerned with war purposes began to make itself felt very soon after the end of hostilities in Europe and while in the first six months of the year nearly 20,000 special trains were run on Government account, the number in the second half of 1945 was about 14,000. For freight traffic as a whole throughout the year total wagon miles were 11 per cent. less than the year before and net ton-miles declined by 10 per cent.

War Effort in Retrospect

Now let me redeem my promise to tell you something of the contribution of the L.N.E.R. to the war effort during these past six years. Special trains with troops, stores, ammunition and other Government traffic numbered 127,000 apart from a vast tonnage of traffic and innumerable passenger journeys by ordinary services on Government account. The movement of such masses of traffic was part of the background to the operations by sea, land, and air during the war years; among them perhaps the bomber offensive may be mentioned as particularly affecting the L.N.E.R., the part which this company played in it receiving a special tribute in December last from the Minister of War Transport himself. With more than three-quarters of the nation's bomber aerodromes on its system, the L.N.E.R. bore the brunt of the vast traffic movement necessary to build them, staff them, and service them. The building of the aerodromes in East Anglia alone involved the transport of 250,000 tons of slag and tarmac: the movement of aerodrome personnel called for 460 special trains, and every raid of 1,000 bombers meant the running of 28 trains of petrol and 8 trains of bombs over our system. Without efficient rail transport the bomber offensive as planned would have been impossible.

Our workshops contributed largely to armament production, manufacturing aircraft components, parts for tanks, guns, and shells, Bailey and Inglis bridges, and complete motor dinghies and Balsa rafts for battleships. The total value of the war material produced since 1939 in L.N.E.R. workshops was approximately £9½ million.

Owing to our geographical position we received our full measure of the onslaught on this country, and in air attacks throughout the war I am sorry to say that 303 of our staff lost their lives and 1,338 were injured. We sustained a greater amount of damage than any other railway company from enemy aerial action of one kind or another, and particularly from rockets during the closing months of the war. Of all the rockets that reached this country, one in every seven fell on or very near to L.N.E.R. property. Incidentally, we enjoy the distinction of being the recipients of the first flying bomb, which fell on one of the company's bridges at Coburn Road between Bethnal Green and Stratford. Our rolling stock suffered severely during the war; 1,583 vehicles were completely de-

stroyed by enemy action and 9,120 vehicles were damaged.

Transition from War to Peace

The end of hostilities brought with it a shifting of the pressure upon the railways. With the summer of 1945 there was evident the natural desire of a people, weary after years of war, to take a holiday away from home, and the resultant increase in passenger traffic over and above the continuing travel of members of the Forces on duty or on leave remained throughout the summer and into the winter. As the year advanced, holiday travellers were replaced by servicemen and women enjoying a greater measure of short leave or proceeding on their demobilisation furlough. Those minatory posters, with their slogan about necessary journeys, disappeared, and the railways were permitted to run as many trains as would carry all the intending passengers so long as their doing so did not interfere with the movement of essential freight traffic—a limitation that meant the continuation of much of the overcrowding that had been an unfortunate necessity throughout the war.

The L.N.E.R., in common with the other railways, quickly devoted its energies towards the first steps in the restoration of the pre-war passenger facilities. Additional trains were run, and at the end of the year the weekly passenger-train mileage for other than Government specials represented an increase of about 10 per cent. compared with 1944. From the beginning of October a resumption was made of restaurant-car facilities on trains—the last of which had been withdrawn at Easter, 1944. More sleeping car berths have been made available in our trains for the ordinary traveller, both by the release of some previously reserved for those with Government priority and by the placing of additional cars in service.

The Effects of War

But six gruelling years of abnormal traffic, during which time heavy arrears of maintenance accumulated, have had their effect on the physical assets of your undertaking. Many locomotives are in need of thorough repair, and inability to undertake new construction during the war years has meant that many are still at work long after the time when they ought to have been scrapped; carriages are six years older and our stock needs renovation and the replacements denied to it since 1939; much of the permanent way needs attention to permit the operation everywhere of faster running; many stations and buildings bear the scars of enemy action and all show the need for renovation and repair after years of enforced "making do."

Most important of all, there is still an acute shortage of skilled labour. I have previously referred to the magnificent work performed by railwaymen and women during the war, work which inevitably involved great mental strain and physical fatigue. The wartime shortage of staff has not yet been made good by the arrival of fresh labour—either by the return of our staff from the Forces or in the form of new entrants, nor must it be forgotten that many men in all grades with splendid patriotism stayed on well beyond normal retiring age to see things through.

Without the skilled staff required, the overtaking of arrears of maintenance on rolling stock, permanent way, and other property is inevitably delayed. This is one of the principal reasons why our passenger services have not yet regained that high standard of punctuality and reliability of which in normal times we were justifiably proud. On the freight side also there was experienced during the last months of 1945

a measure of congestion and delay because our effective locomotive and wagon stocks were reduced in numbers by the incidence of repairs and were liable to failure in traffic because they lacked the peacetime measure of skilled and scrupulous maintenance.

As you have heard, every effort is being made to regain and improve on our previous standards; but our objective cannot be fully achieved so long as the railway is handicapped by coal supplies of inferior quality, and inadequate quantity. Under such conditions it is impossible to ensure the proper working of our locomotives and the punctuality of our trains; and indeed we are threatened with a reduction of our services by reason of shortage of supplies.

Rolling Stock

Another means by which to help forward the improvement in the performance of our rolling stock is new building. I referred a year ago to the long-term programmes for building locomotives, carriages, and wagons; we aim in the next five years to build ourselves or to have built for us 1,000 locomotives, 5,500 carriages, and 70,000 freight wagons. Orders have since been placed with manufacturers for the first year's instalment of the programmes, although the numbers of carriages and wagons to be delivered to us in 1946 are less than we had hoped, because the country's vital need for export has reduced the building capacity available for the home railways. From manufacturers we have ordered 300 locomotives of the medium mixed-traffic type, and the first of these will be at work before the end of the present month.

Accidents

It is desirable that in view of recent events I should say something on the subject of railway accidents and the suggestions implied in some quarters that the hitherto high standard of safety on the British railways is not being maintained. During 1945 there was only one accident on the L.N.E.R. resulting in fatal injuries to passengers; this was the accident at Kings Cross in the month of February when two passengers lost their lives. This year, however, has started badly, and it is with the greatest regret that I must make reference to the serious accidents which occurred at Brownley, near Ferryhill, early in January, when ten passengers sustained fatal injuries, and at Potters Bar on February 10 in which two passengers died. The results of the official inquiries by the Government Inspecting Officers into the circumstances of these two accidents have not yet been published and until the reports are available you will not expect me to give you any detailed comment. I am satisfied, however, that there is no indication of some general and remediable cause to which the unhappy series of mishaps in recent weeks can be attributed.

Wages and Conditions of Service

Early in the year under review, far-reaching claims for increased rates of pay and improved conditions of service for railway employees were submitted by the railway trade unions. It is estimated that their concession in full would have added £36,000,000 to this company's salaries and wages bill. After negotiations between the Railway Executive Committee on behalf of the Ministry of War Transport and the railway trade unions, agreement was reached on the main items of the claims. The cost of the advances and improved conditions granted to L.N.E.R. staff represents in a full year

£5½ millions, and raises our total annual wages bill, which before the war stood at £31½ millions, to about £60 millions.

In my address last year, I directed your attention to the effect which rising costs and falling traffics must inevitably have upon the financial results of the working of the railways, and pointed out that the position could only be adjusted by a substantial increase in the level of rates and fares. Whatever the future may have in store for the railways—and I shall have something to say on that a little later on—that is an inescapable fact, unless indeed a still heavier load is to be laid on the shoulders of the already overburdened taxpayer.

Staff with H.M. Forces

Nearly 4,000 members of the company's staff serving with H.M. Forces were demobilised and returned to their railway employment during 1945. Some 23,000 of our employees were still with the Forces at the end of the year and we shall warmly welcome them back to railway work as soon as they are released. The total number of our employees who died on active service was 1,092, and we extend our deepest sympathy to their relatives and friends.

Claims for Loss and Pilferage

In this brief review of the working of the undertaking I regret that I have no real improvement to report in the number and value of claims paid in respect of the loss and pilferage of both passenger and freight traffic. Claims paid during 1945 through loss and theft numbered nearly 193,000 and their amount was £719,000 compared with 199,000 claims involving £706,000 in 1944. The corresponding number in 1939 was 39,549 and the sum of £42,024 was paid. Close and constant attention continues to be given to this question by the company's officers.

Steamships

Useful progress has been made during the year by the reinstatement of our Harwich steamship services, and towards the replacement of our lost ships. Our steamship *Prague* has returned from war service, and on November 14, after more than six years, she resumed her sailings, under the L.N.E.R. flag, between Harwich and the Hook of Holland. It is a matter of great satisfaction that we have been able to restore this important commercial link with the Continent of Europe and to resume our close and friendly relations with the people of Holland. In full confidence in the future of our Continental services, your directors have placed a contract for a new passenger and cargo vessel for the Hook of Holland route and it is proposed that the vessel shall bear the honoured name of *Arnhem*.

It is also our intention to restore, as soon as possible, and with the practical collaboration of our Belgian friends, the train-ferry service which operated so successfully before the war between Harwich and Zeebrugge, and a contract has been placed for a new train-ferry vessel of the latest design. The further redevelopment of our Harwich services, as well as those in which we are interested on the Humber, is receiving close attention.

Road and Rail Co-ordination

As you will see from the accounts, this company has £4½ millions invested in certain transport and other undertakings. Of this sum, nearly £2½ millions represents the investments in our associated bus companies, which provide us with very satisfactory returns. Through our representation on the boards of these com-

panies, as well as through the joint committees set up in each bus company's territory, very valuable co-ordination with the road passenger transport industry has been effected over the past 16 years.

I referred last year to the railway companies' desire to discuss their proposals for co-ordination of transport with the National Road Transport Federation which at that time had just been incorporated. I am glad to say that very soon after the last annual meeting discussions began with leaders of the road haulage industry and they have continued throughout the year. The talks have been carried on with the utmost goodwill. Both sides of the industry, rail and road, have their peculiar problems and difficulties and these have been frankly discussed and substantial progress has been achieved. Throughout, the aim has been to bring about such changes as will ensure that each form of transport is used to the greatest national advantage.

Air Developments

In my speech a year ago I referred to the comprehensive plan submitted to His Majesty's Government by the four main-line railway companies for the establishment of air transport services within the British Isles and to the principal cities of the Continent of Europe. The plan which was eventually put forward by the Coalition Government in its White Paper of March, 1945, was founded to a large extent on the proposals of the railway companies and, if carried into effect would have enabled the companies to play an important part in the future organisation of air transport services and to make, I say without hesitation, a valuable contribution to their development. A great deal of work was put into the formation of the plan, in the preparation of which the representatives of the railway companies were in close and constant collaboration with the Ministry of Civil Aviation, and preparations for setting up a company to operate the internal and European services, in which the railways would have had a substantial share, were well advanced by last midsummer. The advent to power of the present Government, however, caused the whole of these plans to be held up and on November 1, it was announced in Parliament that the Government had decided that the plan put forward by its predecessors should be abandoned, that public ownership must be the governing principle in air transport and that there should be no financial participation by existing surface transport interests in the arrangements contemplated. With this decision, the railway companies are naturally extremely disappointed, and in their view the scheme which is now proposed is not one which is conducive to the best interests of the community as a whole.

Liverpool Street-Shenfield Electrification

Work on the Liverpool Street-Shenfield Electrification project was suspended at the beginning of the war. The scheme was one of those undertaken at the request of the Government in 1935 and financed under the London Passenger Transport Agreement Act of that year by a loan obtained from the finance corporation formed by the Treasury. Arrangements have now been made for work to be resumed and if the necessary priorities for labour and materials are received, it is hoped that the electrification of the line and the resultant improvement in the operation of the heavy suburban traffic it carries will be accomplished in about two years time.

The difficulties of the immediate post-war period are in some respects even greater than those of the war because there is a natural tendency on the part of the public to look for improvements and to be disappointed if they seem to be slow in appearing. Unfortunately the physical factors governing the restoration of our services—through no fault of our own are singularly inflexible, and this presents us with an acute problem in our relations with the public. We are very much alive to the necessity of preserving the goodwill of both the public and the traders that we enjoyed so fully during the difficulties of the war period, and we are putting our case before the public as clearly as possible, explaining frankly our difficulties and the steps we are taking to overcome them.

Future Plans

I make no apology, ladies and gentlemen, for stressing on this occasion not only the admirable condition of the railway machine when it was placed at the disposal of the Government at the beginning of the war, and the magnificent contribution which it made to final victory, but also the all embracing nature of the plans which have been prepared to restore to the public and to improve the comprehensive services, passenger and goods, which they enjoyed before the war. It is important that our fellow countrymen, with the blighting breath of bureaucracy already assailing the nostrils of the transport industry, should realise that it is no effete and outmoded organisation that the State is proposing to take to itself, but a machine so charged with vitality that not even six years of incessant wear and tear could reduce its output.

You will remember that when we met last year, after the general business of the meeting had been concluded, a resolution was proposed by the Chairman of the L.N.E.R. Stockholders' Association, and carried unanimously, requesting the board of directors to make representations to the Minister of War Transport to the effect that the claim for revision of the agreement which had been presented to and rejected by the Minister the previous year should be submitted for arbitration to a Judge of the High Court. This resolution was in due course submitted to the Minister, who indicated that he was unable to accept the proposal. Then came in quick succession the collapse of Germany, the break up of the Coalition Government and the General Election, resulting in a sweeping victory for the Labour Party, with its extensive programme for the nationalisation of basic industries, including the railways and other forms of transport. These, in the official utterances of Government speakers, find themselves high in the list. Naturally, the declared intention of the Government to take over the operation of the railways from their present owners has caused anxiety in the minds of stockholders as to the terms on which such transfer would be effected. I wish that I were in a position today to give to stockholders some indication as to what the Government has in mind. Unfortunately, up to the present, there is no information available as to the direction in which the Governmental mind is working in the matter of compensation, and there is, I feel, for the time being little point in speculating as to the basis on which proposals will be formulated. This much, however, I can say—that if ever the time comes, stockholders may be assured that your directors will use every means within their power to secure a fair and equitable settlement.

While, therefore, we are not yet in a

position to criticise the financial aspects of railway nationalisation, as they might affect stockholders and taxpayers. I feel no such inhibitions in regard to the practical or operational angle. Though there may be some stockholders who regard nationalisation or State control as a good thing, I have very little doubt that, in what I am about to say, I shall be expressing the views of the great majority. I told you last year I believed that the attainment of the ideals on which our intentions were set could be brought about only by encouraging to the full the spirit of adventure and enterprise on which the strength and prosperity of our country had been built. I said that to no industry did that apply more strongly than to the great transport industry in all its branches. Today, I have nothing to retract. I find myself entirely at one with my friends in the road haulage section of our industry who, with one or two unimportant exceptions, are stoutly fighting for free enterprise and development. I do not say that all State enterprise is bad, or indeed that all private enterprise is good, but I have yet to find, in the railway world, among the many cases where a transfer has been made from private to public control, one where either financial or operational improvement has been effected.

Insidious Propaganda

There is today a certain amount of insidious propaganda going on in high places. We are told the railways are in poor shape, the implication being that had they been nationalised before the war there would have been no shortage of rolling stock or staff, no deterioration of track after six years of abnormal wear and tear. A Junior Minister looks forward to roaring fires, and carpets in waiting rooms, as though nationalisation would induce a change of heart in the President of the Board of Trade or the Minister of Fuel & Power. The old bogey of watered capital is trotted out again. Complaint is made that under private enterprise, railways have developed haphazard. I venture to suggest that not even the Lord President of the Council, had he been Minister of Transport 100 years ago, would have had the foresight so to guide the infant footsteps of a State controlled railway industry as to ensure that it would conform to the requirements of today.

It was the Lord President who laid down in a recent speech in Canada that it was up to the nationalists to prove their case that there will be public advantage by nationalisation. "No less," he continued, "it is up to the anti-nationalists to prove their case that the public interest can best be served by private ownership." It is by no means clear to whom the evidence for and against is to be submitted. But if the Lord President had in mind a commission of inquiry, then I can assure him that the railway companies gladly accept the challenge.

I think it will be generally agreed that during the last six years it would be impossible to produce more reliable witnesses to the manner in which the main-line railways had served the public interest than those members of His Majesty's Government on whose shoulders the responsibility for the day to day conduct of the war rested most heavily. Let me proceed to call them. The then Prime Minister and Minister of Defence, Mr. Winston Churchill, in a message received on the occasion of the coming of age celebrations of the main-line companies in December, 1943, said: "I should like to

take the opportunity of expressing to the railway managements and to every railway employee the nation's thanks for the highly efficient manner in which they have met every demand (every demand, mark you) made upon them."

The Ministers in charge of the Admiralty, the War Office and the Air Ministry, on the same occasion wrote: "We send our congratulations to the managers and staff—during the war they have excelled themselves—that they have been able to handle the vast amount of military traffic and still provide the civilian population with a train service on the present scale is a great tribute to those men and women who are giving devoted and self-sacrificing service on the railway system and to the directing staff."

Lord Leathers, the late Minister of War Transport, speaking at the coming of age luncheon paid this tribute: "The railways have earned the gratitude of the country and deserved all the congratulations which have been heaped upon them. Their wartime achievements have proved how well they were maintained in a state of readiness in the interlude between the two wars."

There is much more to be put in evidence, but today I will produce only a remarkable tribute which I have recently received from the President of the British Iron & Steel Federation who writes as follows: "On behalf of the Iron & Steel Federation I should like to express my very sincere appreciation of the manner in which our traffic has been handled by the railway companies during the war period. Notwithstanding the difficulties under which the railways worked, consequent upon enemy action, and the vast increase in traffic to be dealt with, no steel works had to shut down or seriously curtail its output through the lack of transport of raw materials." The President goes on to point out that iron and steel works traffic reached a peak of 1,500,000 tons a week, that home-produced ore increased from a pre-war figure of 120,000 tons a week to 250,000 tons, and that imported steel, which averaged before the war 1,244,000 tons a year, reached in 1941, the tremendous figure of 3,658,000 tons. "The fact that this traffic was dealt with to our satisfaction," he concludes, "is testimony to the valuable work performed by the railways." I feel sure that you will share my gratification at this spontaneous tribute from an industry which is one of our largest customers.

Is it surprising, in the face of such evidence, that the great trade organisations of the country, representative of the leaders of our major industries, who are, in spite of the cheap sneers of those who should know better, the people on whose initiative and experience the State must depend for the restoration of its trade at home and abroad, have registered in no uncertain terms their profound disagreement with the policy of State control of transport?

Will nationalisation of the railways really help the newly-wed couple to find a house, or the harassed housewife to fill her shopping basket? Will it help our manufacturers to find new markets and recover existing ones? I am convinced that it will do none of these things. At a time when so many grave and terrifying problems, menacing the happiness and well-being not only of ourselves but of the world at large, demand immediate and enduring solution, I protest in all earnestness that it is folly for the Government to experiment with the organisation of well-tried institutions which have proved

their ability to meet national needs to the full in peace and war.

My Lords, ladies and gentlemen: I have now to move: "That the report of the directors with relative statement of accounts for the year ended December 31, 1945, be adopted." I will ask Mr. W. K. Whigham to second the resolution.

Mr. W. K. Whigham: I beg to second the resolution.

The Chairman: Before I invite questions and observations on the report and accounts, I wish to inform the meeting that I have received from Mr. Scott Adie, the Chairman of the London & North Eastern Stockholders' Association, a resolution in the following terms: "That this meeting of stockholders of the London & North Eastern Railway Company is in full agreement with the opinion of the board that the nationalisation of the transport industry is not in the best interests of the country as a whole. Should, however, nationalisation be enforced upon the proprietors, then in the opinion of this meeting the only just basis of compensation is the capital value of their undertaking as an essential national asset."

I have indicated to the proposer that, subject to the approval of the meeting, I am prepared to allow the resolution to be discussed after the general business has been concluded. May I take it that that is agreed? That being so, may I suggest that it would be convenient if stockholders wishing to speak on the nationalisation issue would reserve their observations until the resolution comes up for discussion—otherwise, they might give themselves the inconvenience of having to make their points twice over.

Stockholders' Remarks

Councillor Wilson congratulated the Chairman on his excellent speech and referred to a railway Act of 1844 under which the Government reserved powers to acquire certain railways.

Mr. Cannon referred to the Government State Railways of Victoria, Australia, and to wage reductions at the end of the war.

Mr. J. W. Rattray asked for enforcement of non-smoking in non-smoking carriages and in waiting rooms.

Mr. W. T. Welkington asked the cost of a fortnight's holiday with pay. If the company could afford that for its staff could it not allow some free travel to preferred and deferred stockholders?

Mr. Bender criticised some East Coast services and stations, and also slackness in cleaning trains.

Mr. C. Plaistow asked, on the Hays Wharf Cartage guarantee with the Cooks' business, how the guarantee stood?

Chairman's Reply

The Chairman: I am always glad to hear Councillor Wilson; he is always interesting. I am not going to follow him into the mazes of the 1844 Act. Of course, that Act applied, in the first place, to railways constructed after January 1, 1845, so that certain sections, no doubt, of each main-line railway would be excluded from the operation of the scheme, and I am not going to say too much about what the Government attitude might be to an Act of 1844, except to point out that the Bank of England also had an Act, in 1694.

Then Mr. Cannon gave us a very interesting extract from a document dealing with wages in a remote part of the Empire.

I must say I sympathise very much with Mr. Rattray in his complaint with regard to the use that is made by smokers of non-smoking compartments, and as far as is possible our staffs do their best to prevent smoking; but, during the last six

years, a certain number of strangers in this country were, perhaps, not so amenable to the blandishments of our Inspectors as are our own more law-abiding people, and sometimes I think it has been found to be a little tough explaining the difference between a smoker and a non-smoker. I think I am right in saying that we have non-smoking sleeping cars, but if that proves not to be the case, that is a point which, I think, certainly ought to be looked into.

Mr. Welington raised the question of holidays with pay. Of course that is a matter which affects not only the railways but is now of universal application all through the country; in fact, every industry, and clearly it is going to extend so that ultimately it will cover every industry. The railways are, of course, a huge organisation, and therefore their wage bills run into very substantial figures. The actual amount involved (you must not be shocked) in 14 days' holiday wages is £2 millions. With regard to his suggestion about free travel, you will remember that we had a very interesting discussion in 1942, when Major Gardiner promulgated a scheme on somewhat similar lines, which was emphatically turned down by the stockholders.

Mr. Bender has covered quite a substantial part of the system. I am only hoping that what he has referred to is all that he has been able to find wrong with the company; I am afraid it is possibly not. A great many of these things are already scheduled for extensive alterations and improvements, and Mr. Bender and all of you, of course, realise that we have been very seriously impeded during the last six years in getting on with our renovations, alterations, and improvements, but we are now getting into our stride again. As I pointed out in my speech, there is a very serious shortage of labour and materials which makes it difficult for us to get on as fast as we should like. In regard to the other question that he raised, as to the cleanliness of stations and rolling-stock, I am very much inclined to agree with him there; that is a result, I think, of war-weariness, which is not peculiar to the railway companies alone; there is not, perhaps, the same vigour introduced into the work as one was accustomed to before the war. I hope that will disappear, and I must say this, that the men coming back from the Forces are dealing with matters in a much more realistic spirit, and we hope that the example they are setting, of good hard conscientious work, will permeate the mass in due course.

In regard to the question of Hays Wharf Cartage, I am advised that the guarantee has been sufficient and that nothing more has been paid since 1944.

Mrs. Mary Miller: I wonder whether I might ask a question, Mr. Chairman? You have been speaking about the enormous amount of pilfering. I have not suffered personally on the L.N.E.R., but I have had very big losses on the L.M.S. People are allowed to travel in vans not having guards.

The Chairman: It should not really be very easy to pilfer in a guard's van which is full of people; that might be a safeguard to the luggage in the van. We do not allow people to travel in the vans; they get in the vans. May I now move the resolution, which has been proposed and seconded, adopting the report and accounts?

(The resolution was carried unanimously.)

The resolutions for the payment of dividends and for the re-election of directors were carried unanimously.

The Chairman: Sir W. Harry Peat, K.B.E., F.C.A., one of the Auditors, retires by rotation and, being eligible, offers himself for re-election. Your Audit Committee recommends that Sir W. Harry Peat, K.B.E., F.C.A., be re-elected as Auditor of the company, and that for the year ending December 31, 1946, the joint remuneration of the Auditors should be £4,000, which is the amount paid to them for the year 1945. I will therefore call upon a member of the Audit Committee to move the appropriate resolution, and I will ask another stockholder, also a member of the Audit Committee, to second.

Lord Airedale: I have much pleasure in moving the resolution.

Colonel St. Andrew Warde-Aldam: I have much pleasure in seconding it.

(The resolution was carried unanimously.)

The Chairman: That, ladies and gentlemen, concludes the business for which the meeting has been called, and I will now ask Mr. Scott Adie to propose the resolution which he has submitted in regard to nationalisation of the transport industry.

Informal Meeting

Mr. Scott Adie said he thought that the terms of the Chairman's speech were possibly the strongest recommendation for the resolution that he could imagine. It would seem to simple folk like railway stockholders that there was an abundance of work awaiting governmental attention. Honest work was just a question of doing a job efficiently, thoroughly and well, and he claimed that the British railway organisation had done its work, efficiently, honestly and well. Therefore, in view of the most urgent problems of production, which included the vexed questions of housing and clothing, eating and heating, it would be just as well if governmental energy had been expended on these urgent matters and not frittered away for the purpose of carrying into effect one of the ideological Socialist principles which undoubtedly were so dear to the heart of the theorist. In the event of nationalisation the 1941 agreement could in no way be deemed a yardstick for compensation. The value of railway fixed assets on the basis of today's values, was certainly twice the total amount of the paid-up capital of the company. Additional to these fixed assets the proprietors of the company were owners of a vast sum invested in trust funds in respect of deferred maintenance. The Government were also debtors in a further vast sum for admitted wear and tear. If to these items were added the assets representing reserve and contingency funds, one got some idea of the total value of the company.

Mr. Cavanagh seconded the resolution.

Mr. Short urged stockholders not to think that the passing of a pious resolution ended the struggle. The real job was to harness the votes and influence of a million railway stockholders. He asked all to support the efforts that the two associations of stockholders were making.

Mr. Ashley-Browne asked whether it was not possible for the railway companies, acting through their Chairmen, to approach four or five of the leading industries of this country. Those industries should pledge themselves to fight through any and every channel open to them; there are proprietors, stockholders and shareholders from one end of the country to the other. Nothing less than a national crusade would suffice to defeat this project which dragged after it nothing but delay, stagnation, and despair.

Mr. S. W. Alexander said he felt that probably too much emphasis was placed on the question of compensation. They

were fighting an issue which concerned the welfare of every man, woman and child in this country; it was an issue which might mean death to this country in international affairs if solved in the wrong way. The case for anti-nationalisation, so far as the working people were concerned, was very important. This country, in the past, had financed in other countries the growth of railways and public utilities, and if we gave to those countries an example of nationalisation, we were going to take the resources of trade away from ourselves. This policy of nationalisation was an attack on capital, and an attack on capital had very serious consequences to the working people. Where there was no capital, as in the Far East, there was very cheap labour, and where there was an abundance of capital, such as in the United States of America, wages were high and conditions good. An attack on capital would lower the standard of living of everyone in the country.

Miss Budge asked if there was a plan or policy so that every stockholder might know what to do?

The Chairman: Ladies and gentlemen, may I take it that the eloquence of this meeting has now been exhausted, and that nobody wishes to say anything more on this vital subject?

There are just one or two observations that I should like to make before I put the resolution to the meeting. I do not think it is a good place here this afternoon to disclose what plans there may be. But I do want to say one thing which I think is of vital importance. I want to ask all stockholders to make contact with one or other of the official stockholders' organisations, and to give to the leaders of those organisations as much support as they can in their own neighbourhoods. Through those organisations I feel that an immense amount of pressure can be brought to bear on public opinion. I quite agree that to sit here or to stand here and to pass resolutions gets us nowhere; we must have action, and through the organisations which already exist I think is the best channel for that action to be directed and controlled.

I am very grateful to Mr. Ashley-Browne and Mr. Alexander who have raised, perhaps, wider issues than those with which we are primarily concerned this afternoon, because, after all, we are here as stockholders of the London & North Eastern Railway Company; but I think you will all agree with me that the issues that have been raised, the national issues, the benefit—in fact, the very existence—of the people of this country—is what we all of us have at the back of our minds when we register our undying opposition to the nationalisation of the basic industries of this country. May I leave it like that for the moment and put the resolution that Mr. Scott Adie has proposed to you at the meeting.

(The resolution was carried.)

The Chairman: I think that concludes the business of the meeting this afternoon, and I am very much obliged to you for your attendance.

Mr. Leathers: My Lords, ladies and gentlemen, before we part it will, I am quite sure, be the unanimous desire of you all that we should place on record our very deep appreciation of our Chairman for his services this afternoon and for this continuous service during the past year. I think there is no better way of describing his speech this afternoon than as a statesmanlike one. I have attended the meetings of many railway companies during the last 10 or 15 years but I can say without hesitation that I have never heard a more eloquent, exhaustive and in every

way commendable speech than the one we have had from the Chairman this afternoon. In addition to that, I attended yesterday a meeting of another railway company, and there we all had given to us a printed copy of the remarks of the Chairman of that meeting on the question of nationalisation. Copies of those remarks were going to be sent out to every shareholder of that particular company. Might I suggest that nothing could be more beneficial for our shareholders than if copies of our Chairman's speech dealing with nationalisation were sent to all our shareholders.

I do think that we ought to pay a tribute to Sir Ronald Matthews, not only for what he has done this afternoon, but for the services which he has rendered during the war. There is no occasion which does not receive the most careful personal attention from Sir Ronald Matthews. I have never known anybody who has done more to remedy the complaints, and sometimes the unnecessary complaints, of the shareholders. May I give an instance? Two or three years ago York Station was very seriously blitzed; half the roof was off.

I had an appointment to see Sir Ronald Matthews 24 hours after that. I telephoned him and asked: "Shall I keep the appointment?" He said "Certainly." I went to see him in York, and when I got to York half the station was dismantled; but I heard from him that the day after the blitz took place, 70 per cent. of the trains ran out of the station, and within 48 hours of that blitz taking place, 95 per cent. of trains went out of York Station without any unnecessary delay. That is not only a testimony to his services there, but to the courtesy of Sir Ronald Matthews, and I am sure you will all accord to him a hearty vote of thanks, and hope that we shall see him in his position for many years.

(A vote of thanks was passed by acclamation.)

The Chairman: Thank you very much, Mr. Leathers. I feel quite embarrassed by that tribute; but I do not know whether I shall be in order, after thanking you for the way in which you have received it in saying that I feel quite certain that we shall be here again next year.

Questions in Parliament

Taxicab Queues at Waterloo Station

Lt.-Colonel E. M. King (Penrhyn & Falmouth—Lab.) on March 4 asked the Minister of Transport whether he would arrange for the abolition of the taxicab queues at Waterloo Station, in view of the fact that they were disliked by the taxicabmen and the public and caused delay; and under what legal provision either the taxicabmen or the fare was guilty of an offence if a taxicab were hired in the precincts of the station without taking their place in the queue.

Mr. Alfred Barnes in a written answer stated: The railway company's bye-laws empower it to give reasonable directions to drivers on railway premises about the placing of their vehicles. I cannot express an authoritative opinion whether a legal offence would be committed by the driver or passenger if a cab were hired on railway premises without taking their place in the queue. The queue system, however, ensures that all intending hirers of taxicabs are treated alike and in their proper turns at times when cabs are scarce, and my information is that the public welcomes rather than dislikes the system.

Size of Railway Wagons

In *The Economist* recently several letters have been published on the size of railway wagons. We reproduce the correspondence below and refer to it in an editorial note on page 270.

Sir,—A few months ago I suggested to *Modern Transport* the publication of photos of American and Canadian coal trains—which carry over 3,000 tons in 60- or 70-ton self-discharging wagons. And in their issue of the 5th inst. you will find a little American engine hauling 6,500 tons at 10 miles an hour! Our own locomotives haul only 500 tons because the couplings of these little trucks are too weak to stand the strain of bigger loads. Hence the accident at Newcastle. The colliding train at Lichfield consisted of only nine little trucks of fish. In other countries it would have been loaded into a couple of 40- or 50-ton wagons (which are all fitted with a continuous brake) and attached to a passenger train—avoiding running a special.

Normally, some 30,000 tons of coal are sent daily to London only hauled by 60 locomotives, which American railways would carry in less than a dozen trains. This is why our railways complain that their "train density" is more than five times the American—demanding expensive signalling, safety devices, etc. Also why our rail rates on coal average five times as much as in Canada and the U.S.A.

In the aggregate, these conditions represent an enormous waste in locomotive power, manpower and coal—yet the companies complain of their shortage!

An extraordinary number of men are, again, engaged in patching up outworn trucks, which are now occupying over 600 miles of siding space. They should be scrapped and replaced by 50,000 self-discharging 50-ton or 60-ton American type of wagons—mass-produced. Distributed among the railway companies and numerous private wagon-construction firms and munition works, they could probably be built in a year. They are much more easily built than tanks.

Yours faithfully,

E. R. B. ROBERTS

Eynesbury, St. Neots.

Sir,—The short answer to Mr. E. R. B. Roberts, who wrote in your issue of February 2 suggesting that the British standard railway wagon should henceforth be of the 50-ton or 60-ton type common in America, is that his criticisms should be directed at the whole structure of British industry and distribution, and not at the railway companies.

As regards general merchandise traffic, the tendency before the war was for the average size of consignments to fall and for traders to require the quickest possible delivery to the widest possible range of destinations. The use of larger capacity wagons, save for certain special traffics, must involve either running the wagons loaded to a smaller proportion of their capacity than obtains at present, or delaying despatch until a good wagon-load can be obtained, to the detriment of prompt delivery.

For minerals and heavy merchandise, the standard British four-wheeled wagon is, as a rule, the only type that industrial firms and collieries can conveniently handle over their private sidings, and with their present loading and unloading appliances. If the industrialists and coal dis-

tributors concerned are prepared to undertake the heavy capital expenditure required to enable them to handle the large capacity wagons of the American type suggested by Mr. Roberts, and to provide loads suited to these wagons, the railways would be delighted to build the vehicles.

Mr. Roberts' argument completely ignores the facts that the transport methods of any country must reflect the requirements and customs of its trading community; and that approximately half the total wagon stock of the country is owned, not by the railways, but by traders.

Yours faithfully,

C. H. NEWTON

London & North Eastern Railway,
Dorset Square,
London, N.W.1.

Sir,—Sir Charles Newton's letter to you on the best size of English railway wagons is so packed with old arguments of doubtful value that I feel I should send a protest.

We are told that because the average load of general merchandise in England is only between 2 and 3 tons, therefore the standard wagon of 12½ tons capacity is big enough; but is that good or bad logic? We are not told that the average load of L.C.L. (less than car load) traffic in America is round about 4 tons, but I have yet to hear of an American railroad president who, on that account, advocates a policy of building 12½-ton cars.

Reference is made to the small consignments common in England, and it is suggested that the railways must lay themselves out to deal with traffic in such small lots. But how far are the railways responsible for these small consignments? As the same rates are almost universally charged for large or small consignments on English railways, it would hardly be surprising to find that small consignments were common and therefore that it was difficult to make the best use of high capacity wagons.

Nevertheless, is it really true that consignments in England are so small? Sir Charles did not tell you that on the G.W.R. (and therefore probably on the L.N.E.R. and the L.M.S.R.) an analysis of a week's traffic, undertaken in connection with rates, disclosed the fact that of the 273,643 tons carried in company's wagons, 43.3 per cent. of the tonnage was forwarded in consignments of 20 tons and over; 16.9 per cent. in consignments of from 10 tons to 20 tons and 14.1 per cent. in consignments of from 6 to 10 tons. Of the 43,423 tons of traffic in owners' wagons, 71.9 per cent. was forwarded in consignments of over 20 tons and 17.7 per cent. in consignments from 10 to 20 tons.

These figures suggest that the case for a standard 20-ton wagon in England is not so weak as the official railway view indicates. Why are the railways opposed to larger wagons? My goods manager of the time solemnly and sincerely told me that higher capacity wagons could not be justified, because even when you could load them full in one direction you could not get a full back load. That represented official railway opinion at the highest level. Outside England the economy of the high capacity railway wagon is fully appreciated, yet nowhere in the world, so far as I know, do these wagons get good return loads, and they are working at their greatest efficiency paradoxically enough where they make the return journey empty.

Yours faithfully,

ROGER GIBB

Crabtrees, Long Bottom,
Beaconsfield, Bucks.

Manual Block Working

AT a meeting of the Institution of Railway Signal Engineers held in London on February 8, Mr. B. Wagenrieder read a paper entitled "Manual Block Working." The President, Major R. F. Morrell, was in the Chair. The author traced the stages of development from the time interval system to the adoption of lock-and-block principles, referred to the legal aspect of the matter, the distinction between the block section and signal sections in station limits, the definition of an "adequate interval of space" and the working of the warning arrangement. He also discussed the meaning and uses of the various block indications; the working of facing points and slotted signals, as affected by the block regulations; bell codes, and other details.

Mr. E. G. Brentnall, opening the discussion, said the paper was very timely. In spite of the developments in automatic signalling, manual block working would be with them for a long time. It would be interesting to hear views on the question of overlaps. If they were to allow for errors of judgment, their length ought to vary with the conditions. This was particularly important where they had colour-lights, especially under the 4-aspect system. A 440-yd. overlap was excessive where two colour-light approach warnings were given. Shorter overlap would help the traffic considerably. Speaking of the blocking back signal, Mr. Brentnall referred to the difficulty, mentioned in the paper, as likely to occur at level crossings when the block indicator was at "train on line" without any train arriving. He had not heard of this himself, but thought it was a question of weighing any such difficulty against the cost of the 4-position block instrument which was proposed in the paper.

Mr. H. H. Dyer said there were many refinements today, such as interlocking

the section signal with the block, proving the distant signal arm, and controlling the use of facing points. With remotely controlled points, out of sight of the signalman, the placing of the block to "train on line" was now used to the prevent the moving of the points until the train had gone forward or had arrived on the berth track circuit and been there for a pre-determined time, when, under proper conditions, a release could be obtained. If a driver had seen a distant signal "off," no alteration in the route should be made unless such conditions were met and safety assured.

Mr. L. J. Boucher pointed out that the wording of Rule 39 (a) related to how the signalman was to act. The driver had merely to obey the signal indications, although the effect of the rule might be to make him move with a certain amount of caution. The paper referred to the scientific calculation of overlaps, but it was difficult to have a scientific basis for them without an A.T.C. system. Referring to the normal condition of the block indicator, Mr. Boucher said the Southern Railway used the term "open block" for ordinary block telegraph and "closed block" when electric locking between instruments and levers was provided. The "line blocked" or normal indication was an important one, in his view, as it had the effect of calling attention to the significance of the other two when the change came. "Line blocked," on his railway, was invariably shown as an alternative to "train on line." The latter signal had but one meaning, that the block section was not clear. At the box in rear it meant that the line was occupied and that the man in advance could not accept. As regards level crossings, surely a bell in the block circuit would cure the trouble. The provision of four block indications would not be justified as a general rule.

Mr. A. Moss remarked that the paper said there was no legal definition of block

working. This was not surprising. Before the grouping there were many varying sets of block regulations, and today the rules were not the same on the four main lines. The warning arrangement and blocking back formed a kind of cancelling introduced into the block, something familiar to them in lock-and-block. Probably the only satisfactory arrangement would be to have a fourth indication, unless they could abolish block working altogether, which he thought the best plan.

Mr. A. F. Bound, Past-President, expressed his admiration for our block telegraph system. The safety of our railways had been very largely built up on the block, aided by the apparatus produced by well-known names, such as Tyer, Sykes, and others. Development since had included the addition of track circuit and other controls to the block. The advocates of track circuit working were right, up to a point. On a plain line, free from junctions and with a suitable class of traffic, such working was easy to arrange and had much to commend it. Such a system was a rigid one, however, and that was why it could not be applied universally here, whereas the block was flexible. While that obtained it would have to be our mainstay in this country. How far should they go in getting rid of the signalman, the watchdog of the traffic department? In America he had been able to appreciate what it meant to have no signalmen to observe the passing trains and give warning of anything untoward happening. On the Lickey Incline the L.M.S.R. had introduced a flexible control in conjunction with the train describer, when splitting up the section. There were two lengths of overlap at the intermediate signal, varied according to the class of train indicated on the describer, and the one running ahead of it. With express following express, the long overlap was brought in; with a freight following an express, the short one. Where seconds

Railway Posters Explain Shortages to Public

THE RAILWAYS ARE SHORT OF TRAINED STAFF

Nearly 100,000 skilled railwaymen, one-sixth of the Railways' staffs, have still to be demobilised

When they return, their skill and services will become available to the travelling public

In the meantime, this shortage may affect YOUR train

TO RESTORE PRE-WAR STANDARDS WILL TAKE TIME

GWR LMS LNER SR

IF YOUR TRAIN IS LATE OR CROWDED

it is probably due to

SHORTAGE OF TRAINED STAFF

- Nearly 100,000 skilled railwaymen—a sixth of the whole staff—have still to be demobilised

INFERIOR COAL

- Like the housewife, the Railways are obliged to use coal of inferior quality during the national fuel shortage

SHORTAGE OF CARRIAGES

- 3,500 carriages, with their 180,000 seats, are away every day for repair

SHORTAGE OF LOCOMOTIVES

- Over 3,000 locomotives, overworked during six years of war service, are awaiting or undergoing repair every day

TO RESTORE PRE-WAR STANDARDS WILL TAKE TIME

GWR LMS LNER SR

THE RAILWAYS ARE SHORT OF LOCOMOTIVE COAL

Like other industries, the Railways are affected by the national fuel shortage

Like the housewife, the Railways are having to use coal of inferior quality

The shortage of suitable coal may affect YOUR train

TO RESTORE PRE-WAR STANDARDS WILL TAKE TIME

GWR LMS LNER SR

Reproductions of three posters issued by the main-line railways to explain to the public some of the shortages with which the railways have to cope and their effects on services

counted this was found to be of great benefit.

Mr. H. H. Dyer remarked that the Lickey Incline circuit was designed to avoid any unnecessary stopping of a train on the steep 1 in 37 gradient. He had never heard of the use of the terms "open" and "closed" block, in the sense given to them on the Southern Railway. The normal indication of many 3-position instruments was "line closed," not "blocked."

Mr. J. H. Currey also referred to the Lickey signalling and described an interesting system of light indicators employed on a "panel" to indicate which block bell had sounded. This had proved very satisfactory. Mr. F. L. Castle said the old Midland Railway had an indicator which did the same thing.

Mr. A. A. Pecksen spoke of the use of track circuiting in signal sections, and the practice of using outer homes at junctions with no ordinary inner homes near the fouling point. He wished to see slotting got rid of and looked forward to the substitution of track circuit working for the block.

After Mr. Wagenrieder had replied, Major Morrell moved a vote of thanks to him and announced the annual general meeting for March 18 at 6 p.m. at the Institution of Electrical Engineers.

Allocation of Government Factories

A further 30 Government factories have been allocated by the Board of Trade to industrial firms in recent weeks. They represent an area of about 4½ million sq. ft., and, when in full production, will provide employment for up to 20,000 persons.

In 15 of them the wartime contractors will remain in occupation for civilian production, and there will thus be continuity of employment. In the remainder, the new tenants will take over as soon as possible after the cessation of Government work. The allocations include a factory at Sherburn-in-Elmet to W. & T. Avery Limited (for post-war production of weighing machines); at Sheffield to Firth-Vickers Stainless Steels Limited (for engine components); at Wolverhampton to General Electric Co. Ltd. (for carbons); at Preston to The English Electric Co. Ltd. (for their domestic appliances, and traction motors, etc.); at Trafford Park, Manchester, to Metropolitan-Vickers Electrical Co. Ltd. (for heavy electrical plant); and at Rawtenstall to I.C.I. (Plastics) Limited (for Perspex). In addition to these allocations, the Board of Trade has sought agreement with Vickers Armstrong Limited for the sub-letting of vacant space in the Scotswood factory to Charles Churchill & Co. Ltd., for production of machine tools, and to Aveling-Barford Limited, for production of builders' and contractors' plant. In all, 205 Government factories, with an area of about 51 million sq. ft., have been allotted to private industry or to use by the Government for training and research centres, disposals, depots, and so on. Employment will be provided in them for between 300,000 and 400,000 persons. In addition, the Rolls-Royce factory at Hillington, Glasgow (with the exception of the foundry, which has been acquired by Renfrew Foundries Limited for production of light alloy castings) has been handed over to Scottish Industrial Estates Limited. Three blocks already have been allocated to the Hoffman Manufacturing

Co. Ltd., for manufacture of ball bearings; Scottish Co-operative Wholesale Society Limited, for production of boots and shoes; and Atholl Steel Houses. Rolls-Royce Limited remain in occupation of parts of the factory until the completion of its aeroplane engine contracts.

South African Purchasing Mission in London

A South African Railways Purchasing Mission arrived in England by air on March 5 to expedite the delivery of orders for locomotives and rolling stock for the South African Railways which have been placed with manufacturers in this country, and also to make an investigation of the British main-line railways to assist in formulating a long-term policy for railway development in South Africa. The mission is led by Mr. D. H. C. du Plessis (Chief Harbour, Shipping & Development Manager, South African Railways & Harbours). The other members of the commission, and their official positions in the South African Railways & Harbours Administration, are as follows:—

Messrs. G. A. Dalton (Chief Electrical Engineer), W. G. Ramsay (Manager, Road Motor Services), Captain J. E. Eaglesham (Nautical Adviser), S. J. Harrison (Supervising Marine Engineer), J. Grove (Superintendent (General), General Manager's Office), G. C. Bell (Assistant Locomotive Superintendent), J. C. Steward (Chief Carriage & Wagon Draughtsman), J. A. Kruger (Principal Clerk, Trains Office), and R. H. Botha (Personal Clerk to Mr. du Plessis and Secretary to the mission).

The equipment with which the mission is concerned is as follows:—

Locomotives: 50 "GEA" class Beyer-Garratts (Beyer, Peacock & Co. Ltd., of which 17 are completed), 50 "19D" class 4-8-0 steam locomotives (Robert Stephenson & Hawthorns Limited, partly completed), and 90 "15F" class 4-8-2 steam locomotives (30 Beyer, Peacock & Co. Ltd. and 60 North British Locomotive Co. Ltd., all completed).

Rolling Stock: 700 wagons (Metropolitan-Cammell Carriage & Wagon Co. Ltd., all completed). 500 wagons (same builders, partly completed).

Electric Equipment: 10 electric locomotives (Metropolitan-Vickers Electrical Export Co. Ltd., mechanical parts by Robert Stephenson & Hawthorns Limited, all completed).

The mission is also concerned with an order for 100 "15F" locomotives placed with the North British Locomotive Co. Ltd., delivery of which is expected to commence towards the end of this year and also with 50 "19D" locomotives to be built by the same company. Negotiations will be undertaken shortly for the placing of an order for 125 branch line locomotives and also for 170 road motor vehicles. It is expected that delivery will commence early in 1947 of 54 motor coaches placed with the Metropolitan-Cammell Carriage & Wagon Co. Ltd.

During this year delivery is expected of 28 electric units placed with Metropolitan-Vickers, the mechanical parts of which will be undertaken by Robert Stephenson & Hawthorns Limited. An order for 95 main-line saloons and 132 suburban coaches has been divided between Metropolitan-Cammell Carriage & Wagon Co. Ltd., the Birmingham Railway Carriage & Wagon Co. Ltd., Gloucester Railway Carriage & Wagon Co. Ltd., and Cravens Railway Carriage & Wagon Co. Ltd.

The mission will be in London until March 25, and will then spend a month on tour, after which it is hoped to leave for the

United States and Canada in the first week in May. A few members of the mission will visit Sweden and Switzerland while the party is in this country.

Notes and News

Technical Engineer Required.—A technical engineer is required, with experience in the preparation of electrical traction control schemes, design of apparatus, and the handling of contracts. See Official Notices on page 307.

Cost-of-Living Index.—At February 1 last the official cost-of-living index figure was 103 points above the level of July, 1914, showing no change as compared with a month earlier. At February 1, 1939, it was 55 points above July, 1914.

Grand Union Canal Company.—A dividend for 1945 of 1 per cent. on the ordinary capital stock is recommended by the Directors of the Grand Union Canal Company. This is the first ordinary dividend since 1933, when 17s. 6d. was declared.

The Institution of Locomotive Engineers.—A luncheon will be held at the Connaught Rooms, Great Queen Street, Kingsway, W.C.2, on Friday, March 29, at 1 p.m., by the Institution of Locomotive Engineers. A reception by the President, Mr. W. S. Graff-Baker, will commence at 12.15 p.m. Applications must be received by the Secretary not later than Thursday, March 21.

L.M.S.R. School of Transport Re-opened.—The L.M.S.R. School of Transport at Derby was re-opened on Monday, March 4. This school was established in 1938 for the training of L.M.S.R. staff in the best practices known in the railway industry, and was the subject of an illustrated article in our July 29, 1938 issue. During the war the premises and their unique facilities have been used as a training school for the Royal Engineers.

"Scottish Express."—An instructional film entitled "Scottish Express" has been produced by Paul Barralet Productions Limited, and against the background of a journey in the "Flying Scotsman" from Kings Cross to Edinburgh presents varied scenes of railway operation and engineering. Beginning with views of locomotives and coaches being prepared for the road, the film proceeds to show the departure from Kings Cross, watched by members of a "spotters' club," whose representatives, indeed, are seen on the platforms of most of the other principal stations en route. At Doncaster and York there are digressions to show operations in progress at the locomotive and carriage works respectively, the building of a locomotive being traced from the time when the assembly of boiler and firebox first give it recognisable shape, to the moment of leaving the works on a trial run. A session in the power signalbox at Northallerton follows, in which the unhurried confidence of the signalman and the subdued background sound of route-setting relays at work are good propaganda for railway safety methods. Throughout the film there are numerous scenes on the locomotive footplate, which may well revive a half-forgotten interest in that stronghold among adult audiences and dispel the envy they might otherwise feel for the passenger who is shown at intervals in a corner seat, apparently sleeping throughout the trip. The commentary is informative and entertaining. No serious

mis-statements occur to distress the railway enthusiast. Most of the film has been taken since the war, and only the loading into the restaurant car of a large consignment of bottled beer reveals that certain shots were made at an earlier date.

Barsi Light Railway.—The directors of the Barsi Light Railway Co. Ltd. have declared a dividend on the ordinary stock for the half-year ended September 30, 1945, of 3 per cent., actual, payable on April 26, less income tax at 9s.

New L.M.S.R. Motive Power District.—The L.M.S.R. motive power depot at Skipton has been made the concentration depot for a new motive power district, which includes sheds 20F (Skipton), 20G (Helli-field), and 20H (Lancaster). These depots were previously under the control of Leeds (20A).

L.N.E.R. Royal Engine to be re-named.—With the approval of H.M. the King, L.N.E.R. locomotive No. 1671 (formerly No. 2871) *Manchester City*, which has been allocated to haul the Royal train, is to be re-named *Royal Sovereign*. The engine has already been repainted in the L.N.E.R. pre-war apple green livery.

Isle of Man Railway Company.—Gross receipts for 1945 were £90,265, to which £69,398 was contributed by passenger traffic. The total compares with £84,500 in 1944. Expenditure was £69,347, against £64,101, and the net revenue of £20,918 shows an increase of £519 on the preceding year. The directors recommend payment of a dividend of 5 per cent. on the preference share capital, and of 2½ per cent. on the paid-up ordinary share capital of the company. This will leave a balance of £2,189 to be carried forward, compared with £1,928 in 1944. The company owns 46 miles 20 ch. of line, and in 1945 operated 221,518 train-miles. The locomotive and rolling stock comprises 16 engines, 115 coaches, and 175 goods vehicles.

Underground Map of Central London.—A new map of the Central London Area calling attention to places of interest and amusement and the Underground stations serving them, has now been posted in most London Transport station booking-halls. This map is printed in eight colours and

is gridded into numbered squares, the names of theatres, cinemas, historical and Government buildings, and so on, and their appropriate map references, are shown in the margins. The actual buildings are picked out boldly in red on a grey background. Apart from 75 of the Board's stations the following are shown: 42 theatres, 28 cinemas and variety theatres, 22 historical buildings and memorials, 13 principal hospitals, 10 principal churches, 14 Government agencies, 13 foreign consulates, 35 Government offices, 10 sports grounds and markets, 19 art galleries and museums, 13 concert and exhibition halls, and a few items of general information. The map is printed by Edward Stanford Limited, of Long Acre.

Exhibition of Precision Instruments and Machine Tools.—The Coventry Gauge & Tool Co. Ltd. is opening on March 25 an exhibition of instruments, gauges, thread grinders, and machine tools, to be held at the company's works, Fletchamstead Highway, Coventry. The exhibition will contain all the latest Matrix products, including gauges, instruments, special machine tools, and thread grinders, many of which will be shown to the engineering trade for the first time.

Increasing Resistance to Chemical Attack.—A method known as the M.B.V. process, whereby the natural film of oxide on the surface of aluminium may be increased to provide improved resistance to chemical attack, is dealt with in a pamphlet issued by the British Aluminium Co. Ltd., Salisbury House, London Wall, E.C.2. The process is simple, consisting of immersing the article in a bath of hot solution for 3 to 5 minutes; the bath is composed of an aqueous solution of sodium carbonate and sodium or potassium chromate at 90 to 100° C. The proportions of salts are not critical. When this method is not possible, a paste may be applied to the part requiring treatment. The coating formed may be appreciably increased in hardness and resistance properties by a secondary treatment which consists of maintaining the part in a weak solution of sodium silicate at 90° C. for 15 minutes and afterwards well rinsing in water. Tests have shown that an M.B.V. protected sheet can be bent to sharp angles

or submitted to rolling without materially decreasing the protective action of the film.

G.W.R. Ships Return to Service.—Six G.W.R. ships are being released from their wartime duties. The *St. Julien*, until recently employed as a hospital carrier, is in dock for repairs and refitting. This will take some six months to carry out. The *St. Helier*, which has done duty as a personnel carrier, is to be released shortly and will then be given an austerity refit

British and Irish Railway Stocks and Shares

Stocks	Highest 1945	Lowest 1945	Prices	
			Mar. 12, 1946	Rise/ Fall
G.W.R.				
Cons. Ord. ...	60½	47½	55½	+ ½
5% Con. Pref. ...	124½	104½	111	+ ½
5% Red. Pref. (1950) ...	107½	101½	103	—
5% Rt. Charge ...	137½	120	126½	—
5% Cons. Guar. ...	135½	117	121½	+ 1
4% Deb. ...	118	106	112	—
4½% Deb. ...	119½	108	112½	—
4½% Deb. ...	124½	111½	117	—
5% Deb. ...	138	124	127	—
2½% Deb. ...	83	74½	83½	—
L.M.S.R.				
Ord. ...	33	23½	27½	— ½
4% Pref. (1923) ...	65	50	54½	—
4% Pref. ...	80½	69½	76	+ ½
5% Red. Pref. (1955) ...	106½	99½	101½	+ ½
4% Guar. ...	106½	97	101	+ ½
4% Deb. ...	110½	102	106	—
5% Red. Deb. (1952) ...	110½	103½	106½	—
L.N.E.R.				
5% Pref. Ord. ...	8½	5½	6½	— ½
Def. Ord. ...	4½	2½	3½	—
4% First Pref. ...	62½	49½	53½	—
4% Second Pref. ...	33½	24½	28½	— ½
5% Red. Pref. (1955) ...	103	96	97	—
4% First Guar. ...	104½	95	98	—
4% Second Guar. ...	97	89½	90	—
3½% Deb. ...	91½	82½	91	—
4% Deb. ...	109½	101	106	—
5% Red. Deb. (1947) ...	103½	100	101	—
4½% Sinking Fund Red. Deb. ...	106½	103	103½	—
SOUTHERN				
Pref. Ord. ...	79½	63	73½	+ ½
Def. Ord. ...	27	20½	22½	—
5% Pref. ...	124½	104	110½	—
5% Red. Pref. (1964) ...	117	107	108½	—
5% Guar. Pref. ...	135½	117	121½	+ 1
5% Red. Guar. Pref. (1957) ...	117	106½	108½	—
4% Deb. ...	117	104½	111½	—
5% Deb. ...	137	124	126½	—
4% Red. Deb. (1962- 67) ...	112	104½	106½	—
4% Red. Deb. (1970- 80) ...	113½	104	107½	—
FORTH BRIDGE				
4% Deb. ...	106	103	103	—
4% Guar. ...	106	101	102	—
L.P.T.B.				
4½ "A" ...	125	117	123½	—
5% "A" ...	135	127	133½	—
3% Guar. (1967-72) ...	100	97½	102	—
5% "B" ...	125½	115	117½	—
5% "C" ...	70	58	57	— 2
MERSEY				
Ord. ...	37	31½	31	—
3% Perp. Pref. ...	72½	68½	71	—
4% Perp. Deb. ...	104½	104	103	—
3% Perp. Deb. ...	84	78½	81	—
IRELAND*				
BELFAST & C.D.				
Ord. ...	8½	6	7½	—
G. NORTHERN				
Ord. ...	34	24½	37	— ½
Pref. ...	52½	42½	56	— 2½
Guar. ...	80	68	85	—
Deb. ...	97½	87½	101	— ½
IRISH TRANSPORT				
Common ...	—	—	92½	— ½
3% Deb. ...	—	—	103½	+ ½

* Latest available quotation

Swedish Delegation to Study L.P.T.B. Railways



Swedish engineers who are studying the L.P.T.B. railways, with a view to establishing a similar system in Stockholm

Left to right: Messrs. N. Ingmar Boberg; Olof Zetterstrom; Sigwid Ribbing; Olof Akerman; P. Croom-Johnson, Chief Engineer (Civil & Electrical), L.P.T.B.; W. S. Graff-Baker, Chief Mechanical Engineer (Railways), L.P.T.B.; Evan Evans, Operating Manager (Railways), L.P.T.B.; Hans Larsen; Gosta Carlsson; Bror Hillbom; and Erik Dalbeck

OFFICIAL NOTICES

OFFICIAL ADVERTISEMENTS

OFFICIAL ADVERTISEMENTS: intended for insertion on this page should be sent in as early in the week as possible. The latest time for receiving official advertisements for this page for the current week's issue is 9.30 a.m. on the preceding Monday. All advertisements should be addressed to—*The Railway Gazette*, 33, Tothill Street, Westminster, London, S.W.1.

TECHNICAL ENGINEER, with experience in the preparation of electrical traction control schemes, design of apparatus, and the handling of contracts. Good practical experience and technical education essential, but anyone having industrial D.C. experience would be considered. Salary, £500 to £600 per year.—Box No. 63, c/o *The Railway Gazette*, 33, Tothill Street, Westminster, London, S.W.1.

SENIOR SALES ENGINEER.—Graduate or chartered electrical engineer for technical sales of heavy D.C. electric equipment to railways. Locomotive or traction experience preferable; some commercial and sales experience essential. Salary, £700-£1,000 p.a. London location; superannuation.—Box 113, c/o *The Railway Gazette*, 33, Tothill Street, Westminster, London, S.W.1.

Universal Directory of Railway Officials and Railway Year Book 1945-46

Edition sold out

52nd Annual Edition, 1946-7

Price 20/- net.

In preparation—Order in advance now

THE DIRECTORY PUBLISHING CO., LTD., 33, Tothill Street, London, S.W.1.

Contracts and Tenders

Below is a list of orders placed recently by the Egyptian State Railways:—

British Insulated Callender's Cables Limited: Telegraph and telephone material.
Yorkshire Patent Steam Wagon Company: Cross-heads and connecting rod.

British Iron & Steel Co. Ltd.: Mild steel plates.

George Spencer Moulton & Co. Ltd.: Rubber articles.

P & W. MacLellan Limited: Mild steel flat bars.

Metropolitan-Vickers Electrical Co. Ltd.: Ammeters.

Colvilles Limited: Mild steel flat bars.

North British Locomotive Co. Ltd.: Coupling rods.

Telegraph Condenser Co. Ltd.: Telephone and telegraph material.

Imperial Chemical Industries (Paints Division) Limited: Paints and varnishes.

W. & J. Leigh Limited: Paints and varnishes.

Metropolitan-Vickers Electrical Export Co. Ltd.: Ammeters.

Charles Roberts & Co. Ltd.: Axles and wheels.

Davies & Metcalfe Limited: Rod for steam valve.

Yorkshire Copper Works Limited: Copper tubes.

British Ropes Limited: Stay stand wire.

George Turton Platts & Co. Ltd.: Locomotive spares.

George Spencer Moulton & Co. Ltd.: Wagon spares.

Arthur Balfour & Co. Ltd.: Tool and die steel.

Associated Locomotive Equipment Limited: Locomotive spares.

Ibbotson Brothers & Co. Ltd.: Locomotive spares.

George Salter & Co. Ltd.: Locomotive spares.

Siemens Brothers & Co. Ltd.: Telegraph and telephone material.

Westinghouse Brake & Signal Co. Ltd.: Signalling material.

Forthcoming Meetings

March 18 (Mon.).—The Institution of Railway Signal Engineers, at the Institution of Electrical Engineers, Savoy Place, Victoria Embankment, London, W.C.2. 6 p.m. Annual General Meeting.

March 18 (Mon.).—The Permanent Way Institution (London Section), at the Southern Railway Training School, Clapham Junction. 7 p.m. "The Construction of Earthworks and Bridges on the Chessington Line," by Mr. D. G. Williams, B.Sc., A.M.Inst.C.E. (S.R.).

March 23 (Sat.).—The Permanent Way Institution (Manchester and Liverpool Section), Birkenhead. 3 p.m. "The Use of Gurd's Tables and Graphs," by Mr. A. L. Owen, A.M.Inst.C.E., of Liverpool, and Mr. O. Humphreys, B.Sc., A.M.Inst.C.E., of Manchester.

so as to be available for service at the earliest possible date. All four of the company's Plymouth passenger tenders have been released. *Sir Richard Grenville* and *Sir John Hawkins* are already back in service after refitting, and *Sir Walter Raleigh* and *Sir Francis Drake* are being reconditioned for an early return to service.

London Transport Report.—The annual report of the London Passenger Transport Board for the year ended December 31, 1945, has now been published, and copies can be obtained from the book-stalls at certain of the board's stations, price 1s. It includes a folding map of all the board's railways at present in operation, proposed extensions, and main-line railways in the London area. The report will be dealt with in detail in our issue next week.

Scottish Engineering Centre.—Steps are being taken to establish in Glasgow a Scottish Engineering Centre, with the object of providing a permanent exhibition of British engineering products and equipment for the convenience of consulting and industrial engineers and the general public. Special displays would be held from time to time, and working demonstrations and film shows would be arranged. Exhibitors would normally be required to lease space for not less than two years, and would have facilities for displaying and distributing literature relating to their products. It is also proposed to provide club accommodation, a lecture hall, a secretarial service for visiting engineers, and rooms for committee meetings of local branches of engineering bodies. The provisional office of the association is at 452-457, Sauchiehall Street, Glasgow, C.2.

Industry and Research.—A conference is being convened by the Federation of British Industries at the Kingsway Hall, Kingsway, London, W.C.2, on March 27 and 28, which will provide an opportunity for representatives of organised industry and those who are leading and directing industrial research, to meet and discuss their common problems. The conference, which will be opened by *Sir Robert Robinson*, President of the Royal Society, will be divided into four sessions, and at the opening session *Sir Clive Baillieu*, President of the F.B.I., will preside. At the afternoon session on March 27, when *Sir Stafford Cripps*, President of the Board of Trade, will preside, papers will be read by *Dr. J. R. Hosking*, Director of Research & Development, Paints Division, Imperial Chemical Industries Limited; *Mr. A. Healey*, Director of Production, Dunlop Rubber Co. Ltd.; and *Dr. C. C. Paterson*, Head of the Research Laboratories, General Electric Co. Ltd. On the morning of March 28, *Mr. Herbert Morrison*, Lord

President of the Council, will be in the chair, and after his opening address papers will be presented by *Dr. R. E. Slade*, lately Research Controller of Imperial Chemical Industries Limited; *Mr. C. H. Davy*, Chief Research Engineer, Babcock & Wilcox Limited; and *Mr. A. J. Philpot*, Director of the British Scientific Instrument Research Association. At the final session, presided over by *Sir John Anderson*, there will be contributions from *Dr. P. Dunsheath*, C.B.E., President of the Institution of Electrical Engineers, and *Sir E. Raymond Streat*, C.B.E., Chairman of the Cotton Board. Lastly, *Sir William Larke*, Director of the Iron & Steel Federation and Chairman of the F.B.I. Research Committee, will sum up the proceedings. The conference is open to all interested, and admission will be by ticket, price £1, obtainable from the F.B.I. Industrial Research Secretariat, 21, Tothill Street, Westminster, S.W.1.

Improvements at Stanmore, London Transport.—London Transport has decided to revise the layout of the forecourt at Stanmore Station, to provide improved facilities for the increasing number of passengers using the station who wish to continue their journey by bus or who use their own cars. The approach road to the forecourt will be widened so that buses on Route 142 (Watford Junction to Kilburn Park Station) may pull right up to the station entrance, and the canopy will be extended along the full length of the station frontage to give protection to passengers waiting for buses. For passengers who at present park their cars in the forecourt, and to provide for an expected increase in the numbers wishing to use such a facility, a new car park is to be constructed on the east side of the station.

Service Tests of Electric Locomotives.—In the first instalment of this article, published in the *Electric Traction Section* of our March 1 issue, it should have been made clear under the heading "General Arrangement of Car" that the recordings made in the Amsler dynamometer car are as follow:—

- (1) Speed.
- (2) Tractive effort.
- (3) Work done and power developed momentarily at the drawbar.
- (4) Accelerative tractive effort (i.e., the sum of the linear dynamical and gravitational effort).
- (5) Work done in overcoming the accelerative tractive effort.
- (6) Values associated with the brake equipment, such as (a) air or vacuum pressure in the various pipes and cylinders; and (b) radial and tangential forces at the brake blocks.

The purely dynamical (i.e., d'Alembert's plus gravitational) effort and work are understood in the foregoing.

Railway Stock Market

International politics again had a restraining influence on stock markets and British Funds were inclined to ease after their recent advance. Generally, the volume of business was only moderately lower, dividend increases and victory bonuses bringing in buyers for industrial shares, which continued to show good features, particularly in the stores section. Iron and steel shares became firmer on the higher Guest Keen Baldwins payment and the raising of the Cammell Laird dividend to 12½ per cent., which compares with 10 per cent. per annum throughout the period of the war. Vickers moved higher on market talk of an improved dividend unless it is the intention in the future to provide a bonus by writing up the nominal value of the ordinary units from 10s. to £1.

Recognition of the big potential demand for railway equipment drew more attention to Charles Roberts, North British Locomotive, and Vulcan Foundry, and prices in this section generally moved higher. Courtaulds were active before the dividend announcement. Dunlop Rubber moved higher on balance, partly on news of a new factory for the production of latex rubber cushioning.

There has been less activity in home rails, which, however, were maintained on balance, although the large yields did not appear to be attracting a great deal of attention. They are so large as to arouse fears in the minds of some investors whether there is a likelihood of compensation terms in the event of nationalisation proving extremely unfair to stockholders. It is true, of course, that the dividend in-

creases for the current year must be regarded as victory bonuses, although in the event of nationalisation not being effected a year hence, there might in some instances be further withdrawals from contingencies reserves to maintain dividend payments.

The latest issued return for the four weeks to February 24 has drawn attention to the falling trend of traffics compared with the war period. It has been pointed out in some quarters that were nationalisation postponed for a period of years, the Government might have to pay a substantial sum to provide the railways with their annual rental under the existing control agreement. The implication is that in the absence of the control agreement, dividends at current rates would be impossible. On the other hand, it has to be borne in mind that, as things have worked out so far, the control agreement has been of considerable financial benefit to the Government. Moreover, it is generally recognised that to work on a profitable basis, adjustments would have to be made on the lines of the "square deal" proposals brought forward just before the war, so as to bring railway charges into line with the changed conditions which have developed in recent years. It is hoped in the City that all transport interests will intensify the anti-nationalisation campaign so as to give the public a chance to understand the issues involved.

Great Western at 55 was within ½ of the level of a week ago; but the 5 per cent. preference was fractionally higher at 110½ and the 4 per cent. debentures maintained at 112. L.M.S.R. at 27½ was un-

changed on balance; the senior preference at 76 gathered a point and the 1923 preference improved to 54½. L.N.E.R. second preference, however, came back from 29½ to 28½, but the first preference improved to 53½. Southern deferred was fractionally better at 22½ and the preferred at 74 gained two points on balance, but London Transport "C" lost further ground at 57 on less hopeful views in the market of the dividend outlook.

After moving back further, Argentine rails attracted buyers and showed a small rally, but prices were mostly again lower on balance. Result of the Presidential election was having less influence on sentiment, and debentures of the leading companies were being bought on the view that they appear undervalued and over a period may also offer reasonable scope for appreciation in price. Buenos Ayres Great Southern rallied to 10½ and was unchanged on balance; the 5 per cent. preference was 23½ and the 4 per cent. debentures 60½. Buenos Ayres Western 4 per cent. debentures at 58½ also regained part of an earlier decline, as did Central Argentine 4 per cent. debentures at 57½. Mexican Railway 6 per cent. debentures rose to 54, but elsewhere Nitrate Rails shares at 80s. lost part of their rise. Canadian Pacific were better at 25½.

G. D. PETERS & CO. LTD.—A final dividend of 7½ per cent. is declared for the year, making a total of 15 per cent., plus a special bonus of 2½ per cent. as in the previous year.

Traffic Table and Stock Prices of Overseas and Foreign Railways

Railways	Miles open	Week ended	Traffic for week		No. of Week	Aggregate traffics to date			Shares or Stock	Prices					
			Total this year	Inc. or dec. compared with 1944/5		Totals		Increase or decrease		Highest 1945	Lowest 1945	Mar. 12 1946			
						1945/6	1944/5								
South & Central America	Antofagasta	834	3.3.46	£ 42,210	+	£ 10,530	9	£ 299,550	£ 280,700	+	£ 18,850	Ord. Stk.	12	8½	10
	Arg. N.E.	753	2.3.46	ps. 278,700	—	ps. 22,500	35	ps. 10,393,200	ps. 10,391,100	+	ps. 100	Ord. Stk.	10	5½	5½
	Bolivar	174	Feb., 1946	4,380	—	615	8	9,206	10,638	—	1,432	6 p.c. Deb.	8½	5½	6½
	Brazil	—	—	—	—	—	—	—	—	—	—	Bonds	25	17	26
	B.A. Pacific	2,771	2.3.46	ps. 2,672,000	+	ps. 98,000	35	ps. 78,376,000	ps. 73,529,000	+	ps. 4,847,000	Ord. Stk.	7	5	5½
	B.A.G.S.	5,080	2.3.46	ps. 4,486,000	+	ps. 294,000	35	ps. 121,084,000	ps. 115,120,000	+	ps. 5,964,000	Ord. Stk.	13½	10½	10½
	B.A. Western	1,924	2.3.46	ps. 1,134,000	+	ps. 81,000	35	ps. 42,125,000	ps. 39,574,000	+	ps. 2,551,000	Ord. Stk.	12½	9½	10½
	Cent. Argentine	3,700	2.3.46	ps. 3,390,000	+	ps. 184,000	35	ps. 109,428,450	ps. 101,160,750	+	ps. 8,267,700	Ord. Stk.	9½	7½	9½
	Do.	970	2.3.46	33,914	—	941	35	1,353,041	1,188,923	+	164,118	Ord. Stk.	7½	4	7½
	Costa Rica	262	Jan., 1946	25,528	—	28	30	195,192	146,887	+	48,305	Ord. Stk.	16½	13	13½
	Dorada	70	Feb., 1946	28,065	+	1,388	8	59,814	58,605	+	1,209	1 Mt. Deb.	103	102	104½
	Entre Rios	808	2.3.46	ps. 414,400	+	ps. 12,400	35	ps. 14,835,300	ps. 13,876,400	+	ps. 958,900	Ord. Stk.	7½	4½	6
	G.W. of Brazil	1,030	2.3.46	32,900	+	5,100	9	290,100	251,900	+	38,200	Ord. Stk.	30/-	23/6	22/6
	Inter. Ctl. Amer.	794	Jan., 1946	\$1,024,547	+	\$293,377	4	\$1,024,547	\$731,170	+	\$293,377	—	—	—	—
	La Guaira	22½	Feb., 1946	5,607	—	584	8	12,429	10,517	+	1,912	5 p.c. Deb.	78	70	62½
	Leopoldina	1,918	2.3.46	61,117	+	14,516	9	507,883	402,598	+	105,285	Ord. Stk.	4½	3½	3½
	Mexican	483	28.2.46	ps. 843,100	+	ps. 120,500	8	ps. 6,747,700	ps. 5,223,100	+	ps. 1,524,600	Ord. Stk.	4	4	4
	Midland Uruguay	319	Jan., 1946	18. 31	—	976	29	13. 306	120,238	+	14,068	—	—	—	—
	Nitrate	382	28.2.46	9,366	+	4,233	8	37,157	22,202	+	14,955	Ord. Sh.	75	67½	78½
	N.W. of Uruguay	113	Jan., 1946	5,359	—	988	28	40,636	40,505	+	131	—	—	—	—
	Paraguay Cent.	274	1.3.46	£ 56,633	+	£ 1,429	35	£ 2,085,516	£ 2,065,516	+	£ 20,139	Pr. Li. Stk.	79½	77	75½
Peru Corp.	1,059	Feb., 1946	138,395	+	21,244	34	1,134,456	1,032,102	+	102,354	Prf.	10½	7½	10½	
Salvador	100	Jan., 1946	£ 234,000	+	£ 41,000	28	£ 847,000	£ 751,000	+	£ 96,000	Ord. Stk.	60½	50½	53	
San Paulo	153½	Feb., 1946	5,315	+	3,230	34	24,490	20,045	+	4,445	Ord. Sh.	17/-	10/6	14/10	
Taitai	156	3.3.46	87,154	+	11,881	35	1,729,390	1,78,694	+	59,304	Ord. Sh.	3	1	2	
United of Havana	1,301	3.3.46	1,47	—	9	29	12,542	10,544	+	1,998	—	—	—	—	
Uruguay Northern	73	Jan., 1946	—	—	—	—	—	—	—	—	—	—	—	—	
Canada	Canadian National	23,569	Jan., 1946	6,180,200	—	333,400	4	6,180,200	6,513,600	—	333,400	—	—	—	—
	Canadian Pacific	17,037	7.3.46	1,139,800	—	24,600	9	10,321,400	10,565,000	—	243,600	Ord. Stk.	24	14½	25
Various	Barisi Light†	202	Jan., 1946	25,545	+	5,677	41	247,567	222,982	+	24,585	Ord. Stk.	131	123	116½
	Beira	204	Dec., 1945	68,507	—	2,346	12	205,253	236,186	—	20,933	—	—	—	—
	Egyptian Delta	607	22.2.46	18,343	—	2,696	39	514,206	570,041	—	55,83½	Prf. Sh.	10	8½	7½
	Manila	—	—	—	—	—	—	—	—	—	—	B. Deb.	71	55½	73
	Mid. of W. Australia	277	Jan., 1946	17,786	—	1,859	28	118,260	139,946	—	21,686	Inc. Deb.	97½	85	85
	Nigeria	1,900	24.11.45	92,839	—	6,266	34	1,944,202	2,199,250	—	255,048	—	—	—	—
	Rhodesia	2,445	Dec., 1945	501,079	—	1,998	12	1,518,568	1,562,110	—	43,542	—	—	—	—
	South African	13,301	9.2.46	1,084,953	+	57,790	48	45,710,014	41,736,130	+	3,973,884	—	—	—	—
	Victoria	4,774	Nov., 1945	1,252,024	—	55,618	—	—	—	—	—	—	—	—	—

† Receipts are calculated @ 1s. 6d. to the rupee